

LITTELL'S LIVING AGE.

Fifth Series, }
Volume XIII. }

No. 1657. — March 11, 1876.

{ From Beginning,
{ Vol. CXXVIII.

CONTENTS.

I. ON THE BORDER TERRITORY BETWEEN THE ANIMAL AND THE VEGETABLE KINGDOMS. By T. H. Huxley,	<i>Macmillan's Magazine,</i>	643
II. HER DEAREST FOE. By the author of "The Wooing O't." Conclusion,	<i>Temple Bar,</i>	652
III. ON NATIONAL EDUCATION AS A NATIONAL DUTY. By Professor Max Müller,	<i>Contemporary Review,</i>	676
IV. THE DILEMMA. Part XX.,	<i>Blackwood's Magazine,</i>	681
V. DUTCH GUIANA. By W. Gifford Palgrave. Part II.,	<i>Fortnightly Review,</i>	687
VI. SELF-ESTEEM AND SELF-ESTIMATION,	<i>Cornhill Magazine,</i>	692
VII. PROFESSOR TYNDALL ON THE AIR AND ORGANIC LIFE,	<i>Lancet,</i>	701
VIII. HOSTS AND HOSTESSES,	<i>Queen,</i>	702
POETRY.		
CHANGING GUIDES,	642 THE YEARS,	642
UNDER THE APPLE-TREE,	642 THE BEST USE,	704
MISCELLANY,		704

PUBLISHED EVERY SATURDAY BY
LITTELL & GAY, BOSTON.

TERMS OF SUBSCRIPTION.

For EIGHT DOLLARS, remitted directly to the Publishers, the LIVING AGE will be punctually forwarded for a year, free of postage.

An extra copy of THE LIVING AGE is sent gratis to any one getting up a club of Five New Subscribers.

Remittances should be made by bank draft or check, or by post-office money-order, if possible. If neither of these can be procured, the money should be sent in a registered letter. All postmasters are obliged to register letters when requested to do so. Drafts, checks and money-orders should be made payable to the order of LITTELL & GAY.

Single Numbers of THE LIVING AGE, 15 cents.

CHANGING GUIDES.

ALONG the road the travellers go,
A motley cavalcade;
At midnight, 'midst fast-falling snow,
The march awhile is stayed.

And great and small, and one and all,
Hot youth and lagging age,
They gather waiting round the stone
Which marks another stage.

The journey's done, the stage is run,
The guide must say farewell.
(Hark! down the wind the travellers deem
They hear a passing-bell.)

A stage behind, when wailed the wind
Across a snowy wold,
They halted, and they halt this night,
Upon a midnight cold,

Till this same guide, who stands beside
The stone, now midnight's near,
Came, muffled — none his face could see,
And none his voice could hear.

If he were glad, if he were sad,
Not one of them could know;
But ever as he went along
His veil he lifted slow.

If he were sad, if he were glad,
If he brought good or ill,
They did not know; but, day by day,
He told his tale; and still,

Some called it sad, some said 'twas glad —
So wondrous was the tale.
Each saw him as none other saw,
Who looked behind his veil.

The stage is run, the tale is done,
The guide must say farewell;
And on the wind there comes the sound,
As of a passing-bell.

Now he must go; the winds wail low
Across the snowy wold;
He takes each traveller by the hand —
His hand is very cold.

Of one and all, both great and small,
How loth soe'er they be,
Whatever's false of all they have,
He claims it for his fee.

They plead in vain, for, loth or fain,
They thus his fee must pay;
But nothing that was truly theirs
The guide can take away.

And when he goes none ever knows;
Their grasp is strong and warm —
They think they hold him still — but he
Is whirling down the storm.

Ere they can say, "Farewell for aye!"
Far down the storm he's gone.
The new guide stands with muffled face
Beside the halting-stone.

At midnight thus the cavalcade
Is halted on the plain.
When midnight's past, to meet the morn
The march sets forth again.
Good Words. MARY A. M. HOPPUS.

UNDER THE APPLE-TREE.

A DOME of blossom rises overhead,
Piled like the snows upon some Alpine
height,
And blushing with such tints of pink and red
As summer clouds may wear in vesper light.
Dew-spangled — pierced with sudden shafts
of gold
That slide between the latticed boughs be-
low;
A little world of bloom, that seems to fold
Birds, bees, and sunbeams in a tender glow;
Life is so sweet beneath this fairy bower —
That the full heart must tremble in its bliss,
And fear lest wanton breeze or hasty shower
Should harm one petal by a careless kiss.

Under the apple-tree I stand alone,
In the strange stillness of an autumn day:
Where have the swallows and the brown bees
flown?
What cruel hand hath snatched my blooms
away?

The sullen, silver-rifted sky looks down
Between grey branches, — not a golden
gleam
Falls on the scanty leaves, grown sere and
brown;
And I am haunted by that flowery dream!

O foolish heart! — beside the mossy root
Lie the rich spoils that put thy grief to
shame!
He takes the blossom, but He gives the fruit,
That men may magnify His worthy name.

He gives a treasure for a vanished toy,
Filling the soul before its void is known;
A solid blessing for a fragile joy
His hand bestows: — make thou His gifts
thine own.

Good Words. SARAH DOUDNEY.

THE YEARS.

WHY do we heap huge mounds of years
Before us and behind,
And scorn the little days that pass
Like angels on the wind?

Each, turning round a small sweet face
As beautiful as near,
Because it is so small a face
We will not see it clear.

And so it turns from us, and goes
Away in sad disdain;
Though we could give our lives for it,
It never comes again.

MISS MULOCK.

From Macmillan's Magazine.

ON THE BORDER TERRITORY BETWEEN
THE ANIMAL AND THE VEGETABLE
KINGDOMS.

BY T. H. HUXLEY.

IN the whole history of science there is nothing more remarkable than the rapidity of the growth of biological knowledge within the last half-century, and the extent of the modification which has thereby been effected in some of the fundamental conceptions of the naturalist.

In the second edition of the "*Règne Animal*," published in 1828, Cuvier devotes a special section to the "Division of Organized Beings into Animals and Vegetables," in which the question is treated with that comprehensiveness of knowledge and clear critical judgment which characterize his writings, and justify us in regarding them as representative expressions of the most extensive, if not the profoundest, knowledge of his time. He tells us that living beings have been sub-divided from the earliest times into *animated beings*, which possess sense and motion, and *inanimated beings*, which are devoid of these functions, and simply vegetate.

Although the roots of plants direct themselves towards moisture, and their leaves towards air and light; although the parts of some plants exhibit oscillating movements without any perceptible cause, and the leaves of others retract when touched, yet none of these movements justify the ascription to plants of perception or of will.

From the mobility of animals, Cuvier, with his characteristic partiality for teleological reasoning, deduces the necessity of the existence in them of an alimentary cavity or reservoir of food, whence their nutrition may be drawn by the vessels, which are a sort of internal roots; and in the presence of this alimentary cavity he naturally sees the primary and the most important distinction between animals and plants.

Following out his teleological argument, Cuvier remarks that the organization of this cavity and its appurtenances must needs vary according to the nature of the aliment, and the operations which it has

to undergo, before it can be converted into substances fitted for absorption; while the atmosphere and the earth supply plants with juices ready prepared, and which can be absorbed immediately.

As the animal body required to be independent of heat and of the atmosphere, there were no means by which the motion of its fluids could be produced by internal causes. Hence arose the second great distinctive character of animals, or the circulatory system, which is less important than the digestive, since it was unnecessary, and therefore is absent, in the more simple animals.

Animals further needed muscles for locomotion and nerves for sensibility. Hence, says Cuvier, it was necessary that the chemical composition of the animal body should be more complicated than that of the plant; and it is so, inasmuch as an additional substance, nitrogen, enters into it as an essential element, while in plants nitrogen is only accidentally joined with the three other fundamental constituents of organic beings — carbon, hydrogen, and oxygen. Indeed, he afterwards affirms that nitrogen is peculiar to animals; and herein he places the third distinction between the animal and the plant.

The soil and the atmosphere supply plants with water, composed of hydrogen and oxygen; air, consisting of nitrogen and oxygen; and carbonic acid, containing carbon and oxygen. They retain the hydrogen and the carbon, exhale the superfluous oxygen, and absorb little or no nitrogen. The essential character of vegetable life is the exhalation of oxygen, which is effected through the agency of light.

Animals, on the contrary, derive their nourishment either directly or indirectly from plants. They get rid of the superfluous hydrogen and carbon, and accumulate nitrogen.

The relations of plants and animals to the atmosphere are therefore inverse. The plant withdraws water and carbonic acid from the atmosphere, the animal contributes both to it. Respiration — that is, the absorption of oxygen and the exhalation of carbonic acid — is the specially

animal function of animals, and constitutes their fourth distinctive character.

Thus wrote Cuvier in 1828. But in the fourth and fifth decades of this century, the greatest and most rapid revolution which biological science has ever undergone was effected by the application of the modern microscope to the investigation of organic structure; by the introduction of exact and easily manageable methods of conducting the chemical analysis of organic compounds; and finally, by the employment of instruments of precision for the physical measurement of the forces which are at work in the living economy.

That the semi-fluid contents (which we now term protoplasm) of the cells of certain plants, such as the *Chara*, are in constant and regular motion, was made out by Bonaventura Corti a century ago; but the fact, important as it was, fell into oblivion, and had to be rediscovered by Treviranus in 1807. Robert Brown noted the more complex motions of the protoplasm in the cells of *Tradescuntia* in 1831; and now such movements of the living substance of plants are well-known to be some of the most widely prevalent phenomena of vegetable life.

Agardh, and other of the botanists of Cuvier's generation, who occupied themselves with the lower plants, had observed that, under particular circumstances, the contents of the cells of certain water-weeds were set free and moved about with considerable velocity, and with all the appearances of spontaneity, as locomotive bodies, which, from their similarity to animals of simple organization, were called "zoospores."

Even as late as 1845, however, a botanist of Schleiden's eminence deals very sceptically with these statements; and his scepticism was the more justified, since Ehrenberg, in his elaborate and comprehensive work on the infusoria, had declared the greater number of what are now recognized as locomotive plants to be animals.

At the present day, innumerable plants and free plant-cells are known to pass the whole or part of their lives in an actively locomotive condition, in no wise distinguishable from that of one of the simpler

animals; and, while in this condition, their movements are, to all appearance, as spontaneous—as much the product of volition—as those of such animals.

Hence the teleological argument for Cuvier's first diagnostic character—the presence in animals of an alimentary cavity, or internal pocket, in which they can carry about their nutriment, has broken down—so far, at least, as his mode of stating it goes. And with the advance of microscopic anatomy the universality of the fact itself among animals has ceased to be predicable. Many animals of even complex structure, which live parasitically within others, are wholly devoid of an alimentary cavity. Their food is provided for them, not only ready cooked but ready digested, and the alimentary canal, become superfluous, has disappeared. Again, the males of most rotifers have no digestive apparatus; as a German naturalist has remarked, they devote themselves entirely to the *Minnedienst*, and are to be reckoned among the few realizations of the Byronic ideal of a lover. Finally, amidst the lowest forms of animal life, the speck of gelatinous protoplasm, which constitutes the whole body, has no permanent digestive cavity or mouth, but takes in its food anywhere; and digests, so to speak, all over its body.

But although Cuvier's leading diagnosis of the animal from the plant will not stand a strict test, it remains one of the most constant of the distinctive characters of animals. And if we substitute for the possession of an alimentary cavity, the power of taking solid nutriment into the body and there digesting it, the definition so changed will cover all animals, except certain parasites, and the few and exceptional cases of non-parasitic animals which do not feed at all. On the other hand, the definition thus amended will exclude all ordinary vegetable organisms.

Cuvier himself practically gives up his second distinctive mark when he admits that it is wanting in the simpler animals.

The third distinction is based on a completely erroneous conception of the chemical differences and resemblances between the constituents of animal and vegetable organisms, for which Cuvier is not re-

sponsible, as it was current among contemporary chemists.

It is now established that nitrogen is as essential a constituent of vegetable as of animal living matter; and that the latter is, chemically speaking, just as complicated as the former. Starchy substances, cellulose and sugar, once supposed to be exclusively confined to plants, are now known to be regular and normal products of animals. Amylaceous and saccharine substances are largely manufactured, even by the highest animals; cellulose is widespread as a constituent of the skeletons of the lower animals; and it is probable that amyloid substances are universally present in the animal organism, though not in the precise form of starch.

Moreover, although it remains true that there is an inverse relation between the green plant in sunshine and the animal, in so far as, under these circumstances, the green plant decomposes carbonic acid and exhales oxygen, while the animal absorbs oxygen and exhales carbonic acid; yet the exact investigations of the modern chemical investigator of the physiological processes of plants have clearly demonstrated the fallacy of attempting to draw any general distinction between animals and vegetables on this ground. In fact the difference vanishes with the sunshine, even in the case of the green plant; which, in the dark, absorbs oxygen and gives out carbonic acid like any animal. While those plants, such as the fungi, which contain no chlorophyll and are not green, are always, so far as respiration is concerned, in the exact position of animals. They absorb oxygen and give out carbonic acid.

Thus, by the progress of knowledge, Cuvier's fourth distinction between the animal and the plant has been as completely invalidated as the third and second; and even the first can be retained only in a modified form and subject to exceptions.

But has the advance of biology simply tended to break down old distinctions, without establishing new ones?

With a qualification, to be considered presently, the answer to this question is undoubtedly in the affirmative. The fa-

mous researches of Schwann and Schleiden in 1837 and the following years, founded the modern science of histology, or that branch of anatomy which deals with the ultimate visible structure of organisms, as revealed by the microscope; and from that day to this the rapid improvement of methods of investigation, and the energy of a host of accurate observers, have given greater and greater breadth and firmness to Schwann's great generalization, that a fundamental unity of structure obtains in animals and plants; and that however diverse may be the fabrics, or *tissues*, of which their bodies are composed, all these varied structures result from the metamorphoses of morphological units (termed *cells*, in a more general sense than that in which the word "cells" was at first employed), which are not only similar in animals and in plants respectively, but present a close fundamental resemblance when those of animals and those of plants are compared together.

The contractility which is the fundamental condition of locomotion, has not only been discovered to exist far more widely among plants than was formerly imagined, but, in plants, the act of contraction has been found to be accompanied, as Dr. Burdon Sanderson's interesting investigations have shown, by a disturbance of the electrical state of the contractile substance comparable to that which was found by Du Bois Reymond to be a concomitant of the activity of ordinary muscle in animals.

Again, I know of no test by which the reaction of the leaves of the sundew and of other plants to stimuli, so fully and carefully studied by Mr. Darwin, can be distinguished from those acts of contraction following upon stimuli, which are called "reflex" in animals.

On each lobe of the bilobed leaf of Venus's fly-trap (*Dionaea muscipula*) are three delicate filaments which stand out at right angles from the surface of the leaf. Touch one of them with the end of a fine human hair and the lobes of the leaf instantly close together * in virtue of an act of contraction of part of their substance, just as

* Darwin, "Insectivorous Plants," p. 289.

the body of a snail contracts into its shell when one of its "horns" is irritated.

The reflex action of the snail is the result of the presence of a nervous system in that animal. A molecular change takes place in the nerve of the tentacle, is propagated to the muscles by which the body is retracted, and causing them to contract, the act of retraction is brought about. Of course the similarity of the acts does not necessarily involve the conclusion that the mechanism by which they are effected is the same; but it suggests a suspicion of their identity which needs careful testing.

The results of recent inquiries into the structure of the nervous system of animals converge towards the conclusion that the nerve-fibres, which we have hitherto regarded as ultimate elements of nervous tissue, are not such, but are simply the visible aggregations of vastly more attenuated filaments, the diameter of which dwindles down to the limits of our present microscopic vision, greatly as these have been extended by modern improvements of the microscope; and that a nerve is, in its essence, nothing but a linear tract of specially modified protoplasm between two points of an organism—one of which is able to affect the other by means of the communication so established. Hence it is conceivable that even the simplest living being may possess a nervous system. And the question whether plants are provided with a nervous system or not, thus acquires a new aspect, and presents the histologist and physiologist with a problem of extreme difficulty, which must be attacked from a new point of view and by the aid of methods which have yet to be invented.

Thus it must be admitted that plants may be contractile and locomotive; that, while locomotive, their movements may have as much appearance of spontaneity as those of the lowest animals; and that many exhibit actions comparable to those which are brought about by the agency of a nervous system in animals. And it must be allowed to be possible that further research may reveal the existence of something comparable to a nervous system in plants. So that I know not where we can hope to find any absolute distinction between animals and plants, unless we return to their mode of nutrition, and inquire whether certain differences of a more occult character than those imagined to exist by Cuvier, and which certainly hold good for the vast majority of animals and plants, are of universal application.

A bean may be supplied with water in

which salts of ammonia and certain other mineral salts are dissolved in due proportion; with atmospheric air containing its ordinary minute dose of carbonic acid; and with nothing else but sunlight and heat. Under these circumstances, unnatural as they are, with proper management, the bean will thrust forth its radicle and its plumule; the former will grow down into roots, the latter grow up into the stem and leaves of a vigorous bean-plant; and this plant will, in due time, flower and produce its crop of beans, just as if it were grown in the garden or in the field.

The weight of the nitrogenous protein compounds, of the oily, starchy, saccharine and woody substances contained in the full-grown plant and its seed, will be vastly greater than the weight of the same substances contained in the bean from which it sprang. But nothing has been supplied to the bean save water, carbonic acid, ammonia, potash, lime, iron, and the like, in combination with phosphoric, sulphuric and other acids. Neither protein, nor fat, nor starch, nor sugar, nor any substance in the slightest degree resembling them have formed part of the food of the bean. But the weights of the carbon, hydrogen, oxygen, nitrogen, phosphorus, sulphur, and other elementary bodies contained in the bean-plant, and in the seeds which it produces, are exactly equivalent to the weights of the same elements which have disappeared from the materials supplied to the bean during its growth. Whence it follows that the bean has taken in only the raw materials of its fabric and has manufactured them into bean-stuffs.

The bean has been able to perform this great chemical feat by the help of its green colouring matter, or chlorophyll, which, under the influence of sunlight, has the marvellous power of decomposing carbonic acid, setting free the oxygen and laying hold of the carbon which it contains. In fact the bean obtains two of the absolutely indispensable elements of its substance from two distinct sources; the watery solution, in which its roots are plunged, contains nitrogen but no carbon; the air, to which the leaves are exposed, contains carbon, but its nitrogen is in the state of a free gas, in which condition the bean can make no use of it;* and the chlorophyll is the apparatus by which the carbon is extracted from the atmospheric carbonic acid—the leaves being the chief

* I purposely assume that the air with which the bean is supplied in the case stated contains no ammoniacal salts.

laboratories in which this operation is effected.

The great majority of conspicuous plants are, as everybody knows, green; and this arises from the abundance of their chlorophyll. The few which contain no chlorophyll and are colourless, are unable to extract the carbon which they require from atmospheric carbonic acid, and lead a parasitic existence upon other plants; but it by no means follows, often as the statement has been repeated, that the manufacturing power of plants depends on their chlorophyll, and its interaction with the rays of the sun. On the contrary, it is easily demonstrated, as Pasteur first proved, that the lowest fungi, devoid of chlorophyll, or of any substitute for it, as they are, nevertheless possess the characteristic manufacturing powers of plants in a very high degree. Only it is necessary that they should be supplied with a different kind of raw material; as they cannot extract carbon from carbonic acid, they must be furnished with something else that contains carbon. Tartaric acid is such a substance; and if a single spore of the commonest and most troublesome of moulds — *Penicillium* — be sown in a saucer full of water, in which tartrate of ammonia, with a small percentage of phosphates and sulphates is contained, and kept warm, whether in the dark or exposed to light, it will, in a short time, give rise to a thick crust of mould, which contains many million times the weight of the original spore, in protein compounds and cellulose. Thus we have a very wide basis of fact for the generalization that plants are essentially characterized by their manufacturing capacity — by their power of working up mere mineral matters into complex organic compounds.

Contrariwise, there is a no less wide foundation for the generalization that animals, as Cuvier puts it, depend directly or indirectly upon plants for the materials of their bodies; that is, either they are herbivorous, or they eat other animals which are herbivorous.

But for what constituents of their bodies are animals thus dependent upon plants? Certainly not for their horny matter; nor for chondrin, the proximate chemical element of cartilage; nor for gelatine; nor for syntonin, the constituent of muscle; nor for their nervous or biliary substances; nor for their amyloid matters; nor, necessarily, for their fats.

It can be experimentally demonstrated that animals can make these for themselves. But that which they cannot

make, but must, in all known cases, obtain directly or indirectly from plants, is the peculiar nitrogenous matter protein. Thus the plant is the ideal *prolétaire* of the living world, the worker who produces; the animal, the ideal aristocrat, who mostly occupies himself in consuming, after the manner of that noble representative of the line of Zährdarm, whose epitaph is written in "Sartor Resartus."

Here is our last hope of finding a sharp line of demarcation between plants and animals; for, as I have already hinted, there is a border territory between the two kingdoms, a sort of no-man's land, the inhabitants of which certainly cannot be discriminated and brought to their proper allegiance in any other way.

Some months ago, Professor Tyndall asked me to examine a drop of infusion of hay, placed under an excellent and powerful microscope, and to tell him what I thought some organisms visible in it were. I looked and observed, in the first place, multitudes of *Bacteria* moving about with their ordinary intermittent spasmodic wriggles. As to the vegetable nature of these there is now no doubt. Not only does the close resemblance of the *Bacteria* to unquestionable plants, such as the *Oscillatoria*, and lower forms of fungi, justify this conclusion, but the manufacturing test settles the question at once. It is only needful to add a minute drop of fluid containing *Bacteria*, to water in which tartrate, phosphate, and sulphate of ammonia are dissolved; and, in a very short space of time, the clear fluid becomes milky by reason of their prodigious multiplication, which, of course, implies the manufacture of living bacterium-stuff out of these merely saline matters.

But other active organisms, very much larger than the *Bacteria*, attaining in fact the comparatively gigantic dimensions of one three-thousandth part of an inch or more, incessantly crossed the field of view. Each of these had a body shaped like a pear, the small end being slightly incurved and produced into a long curved filament, or *cilium*, of extreme tenuity. Behind this, from the concave side of the incurvation, proceeded another long cilium, so delicate as to be discernible only by the use of the highest powers and careful management of the light. In the centre of the pear-shaped body a clear round space could occasionally be discerned, but not always; and careful watching showed that this clear vacuity appeared gradually, and then shut up and disappeared suddenly, at regular intervals. Such a struc-

ture is of common occurrence among the lowest plants and animals, and is known as a *contractile vacuole*.

The little creature thus described sometimes propelled itself with great activity, with a curious rolling motion, by the lashing of the front cilium, while the second cilium trailed behind; sometimes it anchored itself by the hinder cilium and was spun round by the working of the other, its motions resembling those of an anchor buoy in a heavy sea. Sometimes, when two were in full career towards one another, each would appear dexterously to get out of the other's way; sometimes a crowd would assemble and jostle one another, with as much semblance of individual effort as a spectator on the Grands Mulets might observe with a telescope among the specks representing men in the valley of Chamounix.

The spectacle, though always surprising, was not new to me. So my reply to the question put to me was, that these organisms were what biologists call monads, and though they might be animals, it was also possible that they might, like the *Bacteria*, be plants. My friend received my verdict with an expression which showed a sad want of respect for authority. He would as soon believe that a sheep was a plant. Naturally piqued by this want of faith, I have thought a good deal over the matter; and as I still rest in the lame conclusion I originally expressed, and must even now confess that I cannot certainly say whether this creature is an animal or a plant, I think it may be well to state the grounds of my hesitation at length. But, in the first place, in order that I may conveniently distinguish this "monad" from the multitude of other things which go by the same designation, I must give it a name of its own. I think (though for reasons which need not be stated at present, I am not quite sure) that it is identical with the species *Monas lens*, as defined by the eminent French microscopist Dujardin, though his magnifying power was probably insufficient to enable him to see that it is curiously like a much larger form of monad which he has named *Heteromita*. I shall, therefore, call it not *Monas*, but *Heteromita lens*.

I have been unable to devote to my *Heteromita* the prolonged study needful to work out its whole history, which would involve weeks, or it may be months of unremitting attention. But I the less regret this circumstance, as some remarkable observations recently published by Messrs.

Dallinger and Drysdale* on certain monads, relate, in part, to a form so similar to my *Heteromita lens*, that the history of the one may be used to illustrate that of the other. These most patient and painstaking observers, who employed the highest attainable powers of the microscope and, relieving one another, kept watch day and night over the same individual monads, have been enabled to trace out the whole history of their *Heteromita*; which they found in infusions of the heads of fishes of the cod tribe.

Of the four monads described and figured by these investigators one, as I have said, very closely resembles *Heteromita lens* in every particular, except that it has a separately distinguishable central particle or "nucleus," which is not certainly to be made out in *Heteromita lens*; and that nothing is said by Messrs. Dallinger and Drysdale of the existence of a contractile vacuole in this monad, though they describe it in another.

Their *Heteromita*, however, multiplied rapidly by fission. Sometimes a transverse constriction appeared; the hinder half developed a new cilium, and the hinder cilium gradually split from its base to its free end, until it was divided into two; a process which, considering the fact that this fine filament cannot be much more than .00001 of an inch in diameter, is wonderful enough. The constriction of the body extended inwards until the two portions were united by a narrow isthmus; finally they separated, and each swam away by itself, a complete *Heteromita*, provided with its two cilia. Sometimes the constriction took a longitudinal direction, with the same ultimate result. In each case the process occupied not more than six or seven minutes. At this rate, a single *Heteromita* would give rise to a thousand like itself in the course of an hour, to about a million in two hours, and to a number greater than the generally assumed number of human beings now living in the world in three hours; or, if we give each *Heteromita* an hour's enjoyment of individual existence, the same result will be obtained in about a day. The apparent suddenness of the appearance of multitudes of such organisms as these in any nutritive fluid to which one obtains access, is thus easily explained.

During these processes of multiplication

* "Researches in the Life-history of a Cercomonad: a Lesson in Biogenesis," and "Further Researches in the Life-history of the Monads." — *Monthly Microscopical Journal*, 1873.

by fission the *Heteromita* remains active; but sometimes another mode of fission occurs. The body becomes rounded and quiescent, or nearly so; and while in this resting state divides into two portions, each of which is rapidly converted into an active *Heteromita*.

A still more remarkable phenomenon is that kind of multiplication which is preceded by the union of two monads, by a process which is termed *conjugation*. Two active *Heteromita* become applied to one another, and then slowly and gradually coalesce into one body. The two nuclei run into one; and the mass resulting from the conjugation of the two *Heteromita*, thus fused together, has a triangular form. The two pairs of cilia are to be seen, for some time, at two of the angles, which answer to the small ends of the conjoined monads; but they ultimately vanish and the twin organism, in which all visible traces of organization have disappeared, falls into a state of rest. Sudden wave-like movements of its substance next occur: and, in a short time, the apices of the triangular mass burst, and give exit to a dense yellowish, glairy fluid filled with minute granules. This process, which, it will be observed, involves the actual confluence and mixture of the substance of two distinct organisms, is effected in the space of about two hours.

The authors whom I quote say that they "cannot express" the excessive minuteness of the granules in question, and they estimate their diameter at less than .000005 of an inch. Under the highest powers of the microscope at present applicable such specks are hardly discernible. Nevertheless, particles of this size are massive when compared to physical molecules; whence there is no reason to doubt that each, small as it is, may have a molecular structure sufficiently complex to give rise to the phenomena of life. And, as a matter of fact, by patient watching of the place at which these infinitesimal living particles were discharged, our observers assured themselves of their growth and development into new monads. These, in about four hours from their being set free, had attained a sixth of the length of the parent, with the characteristic cilia, though at first they were quite motionless; and in four hours more they had attained the dimensions and exhibited all the activity of the adult. These inconceivably minute particles are therefore the germs of the *Heteromita*; and from the dimensions of these germs it is easily shown that the body formed by conjugation

may, at a low estimate, have given exit to thirty thousand of them; a result of a matrimonial process whereby the contracting parties, without a metaphor, "become one flesh," enough to make a Malthusian despair of the future of the universe.

I am not aware that the investigators from whom I have borrowed this history have endeavoured to ascertain whether their monads take solid nutriment or not; so that though they help us very much to fill up the blanks in the history of my *Heteromita*, their observations throw no light on the problem we are trying to solve — is it an animal or is it a plant?

Undoubtedly it is possible to bring forward very strong arguments in favour of regarding *Heteromita* as a plant.

For example, there is a fungus, an obscure and almost microscopic mould, termed *Peronospora infestans*. Like many other fungi, the *Peronospora* are parasitic upon other plants; and this particular *Peronospora* happens to have attained much notoriety and political importance, in a way not without a parallel in the career of notorious politicians, namely, by reason of the frightful mischief it has done to mankind. For it is this fungus which is the cause of the potato-disease; and, therefore *Peronospora infestans* (doubtless of exclusively Saxon origin, though not accurately known to be so) brought about the Irish famine. The plants afflicted with the malady are found to be infested by a mould, consisting of fine tubular filaments, termed *hyphæ*, which burrow through the substance of the potato-plant, and appropriate to themselves the substance of their host; while, at the same time, directly or indirectly, they set up chemical changes by which even its woody frame-work becomes blackened, sodden, and withered.

In structure, however, the *Peronospora* is as much a mould as the common *Penicillium*; and just as the *Penicillium* multiplies by the breaking up of its *hyphæ* into separate rounded bodies, the spores; so, in the *Peronospora*, certain of the *hyphæ* grow out into the air through the interstices of the superficial cells of the potato-plant, and develop spores. Each of these *hyphæ* usually gives off several branches. The ends of the branches dilate and become closed sacs, which eventually drop off as spores. The spores falling on some part of the same potato-plant, or carried by the wind to another, may at once germinate, throwing out tubular prolongations which become *hyphæ*,

and burrow into the substance of the plant attacked. But more commonly, the contents of the spore divide into six or eight separate portions. The coat of the spore gives way, and each portion then emerges as an independent organism, which has the shape of a bean, rather narrower at one end than the other, convex on one side, and depressed or concave on the opposite. From the depression, two long and delicate cilia proceed, one shorter than the other, and directed forwards. Close to the origin of those cilia, in the substance of the body, is a regularly pulsating contractile vacuole. The shorter cilium vibrates actively, and effects the locomotion of the organism, while the other trails behind; the whole body rolling on its axis with its pointed end forwards.

The eminent botanist, De Bary, who was not thinking of our problem, tells us, in describing the movements of these "Zoospores," that, as they swim about, "foreign bodies are carefully avoided, and the whole movement has a deceptive likeness to the voluntary changes of place which are observed in microscopic animals."

After swarming about in this way in the moisture on the surface of a leaf or stem (which, firm though it may be, is an ocean to such a fish) for half an hour, more or less, the movement of the zoospore becomes slower, and is limited to a slow turning upon its axis, without change of place. It then becomes quite quiet, the cilia disappear, it assumes a spherical form, and surrounds itself with a distinct, though delicate, membranous coat. A protuberance then grows out from one side of the sphere, and, rapidly increasing in length, assumes the character of a hypha. The latter penetrates into the substance of the potato-plant, either by entering a stomate or by boring through the wall of an epidermic cell, and ramifies, as a mycelium, in the substance of the plant, destroying the tissues with which it comes in contact. As these processes of multiplication take place very rapidly, millions of spores are soon set free from a single infested plant; and from their minuteness they are readily transported by the gentlest breeze. Since again, the zoospores set free from each spore, in virtue of their powers of locomotion, swiftly disperse themselves over the surface, it is no wonder that the infection, once started, soon spreads from field to field, and extends its ravages over a whole country.

However, it does not enter into my

present plan to treat of the potato-disease, instructively as its history bears upon that of other epidemics; and I have selected the case of the *Peronospora* simply because it affords an example of an organism, which, in one stage of its existence, is truly a "monad," indistinguishable by any important character from our *Heteromita*, and extraordinarily like it in some respects. And yet this monad can be traced, step by step, through the series of metamorphoses which I have described, until it assumes the features of an organism, which is as much a plant as an oak or an elm is.

Moreover it would be possible to pursue the analogy further. Under certain circumstances, a process of conjugation takes place in the *Peronospora*. Two separate portions of its protoplasm become fused together, surround themselves with a thick coat, and give rise to a sort of vegetable egg called an *oospore*. After a period of rest, the contents of the oospore break up into a number of zoospores like those already described, each of which, after a period of activity, germinates in the ordinary way. This process obviously corresponds with the conjugation and subsequent setting free of germs in the *Heteromita*.

But it may be said that the *Peronospora* is, after all, a questionable sort of plant; that it seems to be wanting in the manufacturing power, selected as the main distinctive character of vegetable life; or at any rate, that there is no proof that it does not get its protein-matter ready made from the potato-plant.

Let us, therefore, take a case which is not open to these objections.

There are some small plants known to botanists as members of the genus *Coleochaete*, which, without being truly parasitic, grow upon certain water-weeds, as lichens grow upon trees. The little plant has the form of an elegant green star, the branching arms of which are divided into cells. Its greenness is due to its chlorophyll, and it undoubtedly has the manufacturing power in full degree, decomposing carbonic acid and setting free oxygen under the influence of sunlight.

But the protoplasmic contents of some of the cells of which the plant is made up occasionally divide, by a method similar to that which effects the division of the contents of the *Peronospora* spore; and the severed portions are then set free as active monad-like zoospores. Each is oval and is provided at one extremity with two long active cilia. Propelled by these,

it swims about for a longer or shorter time, but at length comes to a state of rest and gradually grows into a *Coleochaete*.

Moreover, as in the *Peronospora*, conjugation may take place and result in an oospore; the contents of which divide and are set free as monadiform germs.

If the whole history of the zoospores of *Peronospora* and *Coleochaete* were unknown, they would undoubtedly be classed among "monads" with the same right as *Heteromita*; why then may not *Heteromita* be a plant, even though the cycle of forms through which it passes shows no terms quite so complex as those which occur in *Peronospora* and *Coleochaete*? And, in fact, there are some green organisms, in every respect characteristically plants, such as *Chlamydomonas*, and the common *Volvox*, or so-called "globe animalcule," which run through a cycle of forms of just the same simple character as those of *Heteromita*.

The name of *Chlamydomonas* is applied to certain microscopic green bodies, each of which consists of a protoplasmic central substance invested by a structureless sac. The latter contains cellulose, as in ordinary plants; and the chlorophyll which gives the green colour enables the *Chlamydomonas* to decompose carbonic acid and fix carbon, as they do. Two long cilia protrude through the cell-wall, and effect the rapid locomotion of this "monad," which, in all respects except its mobility, is characteristically a plant.

Under ordinary circumstances the *Chlamydomonas* multiplies by simple fission, each splitting into two or into four parts, which separate and become independent organisms. Sometimes, however, the *Chlamydomonas* divides into eight parts, each of which is provided with four, instead of two cilia. These zoospores conjugate in pairs, and give rise to quiescent bodies, which multiply by division, and eventually pass into the active state.

Thus, so far as outward form and the general character of the cycle of modifications through which the organism passes in the course of its life are concerned, the resemblance between *Chlamydomonas* and *Heteromita* is of the closest description. And on the face of the matter there is no ground for refusing to admit that *Heteromita* may be related to *Chlamydomonas*, as the colourless fungus is to the green alga. *Volvox* may be compared to a hollow sphere, the wall of which is made up of coherent chlamy-

domonads; and which progresses with a rotating motion effected by the paddling of the multitudinous pairs of cilia which project from its surface. Each *Volvox*-monad has a contractile vacuole like that of *Heteromita lens*; and moreover possesses a red pigment spot like the simplest form of eye known among animals.

The methods of fissive multiplication and of conjugation observed in the monads of this locomotive globe are essentially similar to those observed in *Chlamydomonas*; and though a hard battle has been fought over it, *Volvox* is now finally surrendered to the botanists.

Thus there is really no reason why *Heteromita* may not be a plant; and this conclusion would be very satisfactory, if it were not equally easy to show that there is really no reason why it should not be an animal.

For there are numerous organisms representing the closest resemblance to *Heteromita*, and, like it, grouped under the general name of "monads," which, nevertheless, can be observed to take in solid nutriment, and which therefore have a virtual, if not an actual, mouth and digestive cavity, and thus come under Cuvier's definition of an animal. Numerous forms of such animals have been described by Ehrenberg, Dujardin, H. James Clark and other writers on the infusoria.

Indeed, in another infusion of hay in which my *Heteromita lens* occurred, there were innumerable infusorial animalcules belonging to the well-known species *Colpoda cucullus*.*

Full-sized specimens of this animalcule attain a length of between one three-hundredth or .0025 of an inch, so that it may have ten times the length and a thousand times the mass of a *Heteromita*. In shape it is not altogether unlike *Heteromita*. The small end, however, is not produced into one long cilium, but the general surface of the body is covered with small actively vibrating ciliary organs, which are only longest at the small end. At the point which answers to that from which the two cilia arise in *Heteromita*, there is a conical depression, the mouth; and in young specimens a tapering filament, which reminds one of the posterior cilium of *Heteromita*, projects from this region.

The body consists of a soft granular protoplasmic substance, the middle of which is occupied by a large oval mass

* Excellently described by Stein, almost all of whose statements I have verified.

called the "nucleus;" while, at its hinder end, is a "contractile vacuole," conspicuous by its regular rhythmic appearances and disappearances. Obviously, although the *Colpoda* is not a monad, it differs from one only in subordinate details. Moreover, under certain conditions, it becomes quiescent, incloses itself in a delicate case or *cyst*, and then divides into two, four, or more portions, which are eventually set free and swim about as active *Colpoda*.

But this creature is an unmistakable animal, and full-sized *Colpoda* may be fed as easily as one feeds chickens. It is only needful to diffuse very finely ground carmine through the water in which they live, and, in a very short time, the bodies of the *Colpoda* are stuffed with the deeply coloured granules of the pigment.

And if this were not sufficient evidence of the animality of *Colpoda*, there comes the fact that it is even more similar to another well-known animalcule, *Paramecium*, than it is to a monad. But *Paramecium* is so huge a creature compared with those hitherto discussed — it reaches one one-hundred-and-twentieth of an inch or more in length — that there is no difficulty in making out its organization in detail; and in proving that it is not only an animal, but that it is an animal which possesses a somewhat complicated organization. For example, the surface layer of its body is different in structure from the deeper parts. There are two contractile vacuoles, from each of which radiates a system of vessel-like canals; and not only is there a conical depression continuous with a tube, which serve as mouth and gullet, but the food ingested takes a definite course and refuse is rejected from a definite region. Nothing is easier than to feed these animals and to watch the particles of indigo or carmine accumulate at the lower end of the gullet. From this they gradually project, surrounded by a ball of water, which at length passes with a jerk, oddly simulating a gulp, into the pulpy central substance of the body, there to circulate up one side and down the other, until its contents are digested and assimilated. Nevertheless, this complex animal multiplies by division, as the monad does, and, like the monad, undergoes conjugation. It stands in the same relation to *Heteromita* on the animal side, as *Colcochate* does on the plant side. Start from either, and such an insensible series of gradations leads to the monad that it is impossible to say at any stage of the

progress — here the line between the animal and the plant must be drawn.

There is reason to think that certain organisms which pass through a monad stage of existence, such as the *Myxomycetes*, are, at one time of their lives, dependent upon external sources for their protein-matter, or are animals; and at another period manufacture it, or are plants. And seeing that the whole progress of modern investigation is in favour of the doctrine of continuity, it is a fair and probable speculation — though only a speculation — that, as there are some plants which can manufacture protein out of such apparently intractable mineral matters as carbonic acid, water, nitrate of ammonia, and metallic salts; while others need to be supplied with their carbon and nitrogen in the somewhat less raw form of tartrate of ammonia and allied compounds; so there may be yet others, as is possibly the case with the true parasitic plants, which can only manage to put together materials still better prepared — still more nearly approximated to protein — until we arrive at such organisms as the *Psorospermia* and the *Pankhistophyton*, which are as much animal as vegetable in structure, but are animal in their dependence on other organisms for their food.

The singular circumstance observed by Meyer, that the *Torula* of yeast, though an indubitable plant, still flourishes most vigorously when supplied with the complex nitrogenous substance, pepsin; the probability that the *Peronospora* is nourished directly by the protoplasm of the potato-plant; and the wonderful facts which have recently been brought to light respecting insectivorous plants, all favour this view; and tend to the conclusion that the difference between animal and plant is one of degree rather than of kind; and that the problem whether, in a given case, an organism is an animal or a plant, may be essentially insoluble.

From Temple Bar.

HER DEAREST FOE.

CHAPTER XXXIX.

WELCOME as he ever was, Tom Reed was perhaps never so anxiously looked for as on the present occasion. Kate felt that he could disentangle the ravelled skein of her affairs; that he only could deal with Trape; and his tact so manipulate the difficulties with which her relations

to Galbraith bristled, as to effect a fair division of the property she hoped to prove her own, without letting Galbraith know her identity until it was accomplished.

Kate enjoyed the rare advantage of being in sympathy with her adviser. Generally an adviser is an enemy, whose opinions, ranged under a different banner from one's own, are to be in some way circumvented or twisted into accord with the advised: or, possessing sufficient weight to impose them upon the bearer, they are so often acted upon in an unwilling spirit as to neutralize their possible good effect.

But there was a real accord between Tom Reed and the young widow; even when they differed, each knew that he or she was thoroughly understood by the other.

Fanny was of course in a state of un concealable joy. She had stolen half an hour in the afternoon to compound a lobster currie for the late dinner or early supper at which Tom was expected. A low and mundane method of preparing for a lover's reception perhaps, in the reader's opinion, but — ask the lover's!

The trains between Stoneborough and Pierstofte were by no means patterns of punctuality, and the friends agreed not to expect Tom till quite half an hour after he was due. That half an hour was nearly exhausted, when their attention was diverted by the entrance of Mills with a note, an untidy note without an envelope, and fastened by a wafer. It was directed to T. Reed, Esq., in a very intoxicated-looking hand.

"This has just been brought by a boy from the Shakespeare Inn, ma'am, and he wants to know if Mr. Tom is come."

"Say he has not, but we expect him every moment," replied Mrs. Temple, scanning the note critically. "This is from Trapes, no doubt."

"Don't you think we might open it?" insinuated Fanny, laying a couple of covetous little fingers on it. "It is all about yourself, of course. I really think you might read it, Kate."

"You impatient puss! I think we might wait for Tom to read his own correspondence. He will be here in a quarter of an hour if he comes at all."

"Ah, Kate, that is a cruel 'if'!"

"Never fear, Fan — there, there is some conveyance stopping at the door. Here he is, and I shall run away!"

"Indeed, Kate, indeed you need not!"

But Kate was gone. The next moment

a hearty hug, a long, loving kiss, put everything and every one save the donor out of Fanny's head. "It seems a hundred years since I saw you, my darling," cried Tom, who, though looking a little thin and worn, was in high spirits and full of animation. "You little, ungrateful, saucy coquette! you are as blooming and bright as if I had been at your elbow all the time! Where is the pale cheek and tear-dimmed eyes that ought to show the sincerity with which you mourned my absence, and the severe mental arithmetic you exercised counting the days till I came?"

"Ah, Tom, I should have had a dash of uncertainty to reduce me to the proper condition of paleness and dimness. But I know you, and I am at rest," a small responsive hug, and some half-uttered ejaculations interrupted, as may be imagined.

"I see I do not go the right way to work to show what a valuable article I am!" cried Tom.

"If you worried, or gave me any trouble, I should not care a straw about you," said Fanny, with a pretty moan.

"Now let me call Kate, she is dying to see you."

"I think she might give us a few minutes more law."

"Oh, here, Tom, is a note for you!" cried Fanny, darting to the mantelpiece and taking it down. "I believe it is from that strange man, Mr. Trapes."

"Trape!" echoed Tom, in much surprise. "How does he know that I am here?"

"Oh, because — but I will leave Kate to tell everything. Just do look at the note!"

"There! you may discount your rights, if you choose," said Tom, laughing, and handing the scrawled morsel of paper to her.

"What a hand! What is that word?"

"Seriously."

"Read it to me, dear Tom."

"My dear Reed, — I am seriously ill, and cannot go to see you as I promised Mrs. T—. I feel as if I was near the end of the race, and nowhere! Look in on me, like a brick, to-morrow."

"Yours, G. TRAPES."

"If Trapes knocks up, he will not last long," said Tom, gravely; "but call Mrs. Travers. I long to hear all about everything!"

"Now tell me how you unearthed Trapes?" asked Tom.

They were sitting round the fire after dinner, Mrs. Temple having insisted on his refreshing himself before going into any discussion of business.

"He came to the surface of his own accord," she replied, and proceeded to describe her encounter with him clearly and shortly, till she came to the part performed by Galbraith, where she broke down for an instant, paused, collected herself, and continued her narrative by a decided abridgment. "When I was sufficiently recovered to walk home, Sir Hugh Galbraith was good enough to come part of the way, and I have not seen him since." She then passed rapidly on to Trapes's evening visit, and his remarkable boast: "I can produce the man who drew out the will, two or three months after Mr. Travers's death; and I can produce the man that employed him to do it!"

"This is very extraordinary," said Tom, when Kate ceased speaking. "If Trapes can make good his promise, of course your success is an accomplished fact. But I must warn you that my former acquaintance is given to the wildest romancing at times. Still, I believe he does know something of importance. One point, however, I must press upon you, Mrs. Temple: do not see this scamp any more—leave him to me."

"Most willingly and thankfully, dear Tom."

"Very well. Now, do you think he recognized Galbraith?"

"No; I do not think he did."

"Mind," continued Tom, "I don't think it matters a straw whether he tells his tale to Galbraith or to you, if he can support it; for of course, a man of Galbraith's position and character would not for a moment hesitate about restoring your rights. All I want to make sure of before we stir in the matter is, to be prepared with irresistible proof. As things are at present, we should only be knocking our heads against the stone wall of a long lawsuit were you to move. However, you must leave Trapes to me." There was a pause, during which Tom appeared lost in thought—a condition which Kate and Fanny respected too much to disturb. At last he roused himself, and assumed the attitude peculiar to Britons when about to dictate or domineer—that is, he placed himself on the hearth-rug, with his back to the fire. "It was a remarkable, though fortunate accident that Sir Hugh Galbraith came to your assistance. Is it permitted to ask what brought him to Pierstoffe just in the nick of time?" And

Tom, with an air of comical solemnity, paused for a reply.

Kate crimsoned even over her little ears, but answered steadily, though in a low voice, "No, Tom, you must not ask. I cannot tell you any fibs, so I would rather say nothing."

"Ahem!—and in spite of this gallant rescue and unexpected appearance—I presume it was unexpected?"

"Most unexpected!" she returned.

"You are determined to carry the war into the enemy's country?"

"Quite determined!" said Kate rising and coming to the fire, where she leaned against the chimney-piece, "if I can bring an overwhelming force to bear upon his position."

"Do you mean to say," exclaimed Tom, quickly, darting one of his keenest glances at the fair, downcast face before him, "that you have any fresh cause for vengeance?"

"For vengeance? oh, no!" she returned, looking frankly into his eyes. "My opinion of Sir Hugh is changed for the better. It is for his sake as well as my own that I wish matters hurried on."

"You are incomprehensible!" he returned, less amiably than usual.

"Then do not try to comprehend me," she said, gently laying her hand on his arm, "but act as if the chapter of accidents had never brought Hugh Galbraith to lodge under my roof—continue to be my best friend as you have been."

"You generally make slaves of your friends," replied Tom, resignedly. "However, I have not opened my budget yet. I saw Wall this morning. He had just had S——'s opinion, and showed it to me. He considers that there are grounds for taking criminal proceedings against Poole."

"And will Mr. Wall arrest him, then?" asked Kate, anxiously.

"No. He would in the first instance summon Poole to answer the charge of having wilfully perjured himself by swearing that he was present when Mr. Travers executed the second will. But, as nothing could be done till Monday, I advised his waiting my return before he took any step, thinking there might be something in your idea that Trapes could give us information that would implicate Ford."

"And he can, depend upon it, Tom!" said Kate, thoughtfully. "I dropped a hint that perhaps his information might be more valuable to Mr. Ford than to me, and I saw his countenance change unmistakably."

"You should be exceedingly cautious what you let out to a man like Trapes," returned Tom. "There is no telling what mischief he might make of anything—or nothing."

"I do not think I did my cause any harm by my remark, but it certainly affected Mr. Trapes."

"Well, I shall probably find out to-morrow. I am not sorry the poor devil is obliged to keep his room. Men of his type are always easier to manage when they feel the grip of their proprietor upon them! Do you know, I have always been sorry for Trapes. He was a very pleasant, good-natured fellow once, seven or eight years ago. Never quite free from a dash of the blackguard, but would perhaps have kept right if he had fallen into better hands."

"Perhaps," said Kate, doubtfully. "Yet I imagine, if we could open such a man's head or heart, and look at the works as you do at your watch, we should find some weak or imperfect mechanism—some faulty bits in which the tempter can insert the point of his wedge."

"Still, with different influences, he might have been a different man."

Kate, gazing at the fire, made no reply.

"The long and short of it is," said Fanny, with sly gravity, "he had not your adamant firmness, Tom! At any rate," with a pleasant, almost tender smile, "Kate and I are inclined to believe that the mainspring of your heart's machinery works true and steadily." To which Tom's appropriate reply was a good honest kiss, despite Kate's presence.

She smiled, and naturally inquired, "What have you two dear friends decided upon?"

"You mean as regards a joint establishment?" asked Tom. "I cannot get a distinct reply from your undecided assistant. I wanted her long ago to give a month's warning, and take another situation. I am glad to have a chance of pleading my cause before you, Mrs. Temple. As matters stand at present there is no reason why Fanny should not take me for better, for worse, say—come! I will be reasonable—this day fortnight! Meantime you might advertise the Bazaar. You will easily dispose of it. Come, join us in London, be on the spot to enact the importunate widow, and make life a burden to old Wall! Come, now, like a brace of angels, say, 'Done!' and we will arrange preliminaries before we sleep to-night."

"There is no particular reason why Fanny should not marry you," said Kate,

thoughtfully; "but I cannot leave Piers-toffe. This is not the most agreeable life to me, nevertheless I will not break up the little home I have made till the question I am about to raise is settled, *then* I shall in any case make a change."

"There!—I told you so," said Fanny; "and as long as Kate keeps in this stupid, odious, disagreeable shop, I will stay with her. You don't think I am of much use, I suppose," a little querulously; for, though true to her friend, poor Fanny's heart had leaped with delight at the picture presented of going to live with Tom in London; "but I know Kate could not live without me, at least not comfortably—could you, Kate?"

"No, indeed!" heartily. "Tom, will you think me very selfish? Leave Fanny with me just a little longer. I feel we shall soon know something more of this will,—and—I do not know why, but I am very sad and fearful." She held out her hand, and her rich, soft voice faltered.

"My dear Mrs. Travers, you are our first consideration. It is a bargain. This case is postponed till this day month, when a decree will be given."

"Thank you, dear Tom. And now Fanny will entertain you. I feel weary and headachy, so will go to bed."

The next morning, after breakfast, Tom Reed announced his intention of going to see Trapes at once.

"Yes, do, Tom," said Mrs. Temple; "we can do nothing until we know what he has to reveal."

"Well, I shall go to church," remarked Fanny.

"And I will escort you there," added Tom. "Will you come?" addressing Kate.

"No, it would be a mockery. I could not attend to what was going on. I am too much on the stretch to know about Trapes. I shall pray at home."

Tom and his *fiancée* set out accordingly, and Kate bore the lonely waiting as best she could. Seated near the fire—her eyes fixed on the red coals, her thoughts roaming far and near—trying to picture to herself the effect of her claim upon Hugh Galbraith's temper and character, to recall the various indications of his nature which she had noticed, and from them to decide how he would take the final revelation. "I have done nothing wrong—nothing he has any real right to be angry with; yet will he not think that I ought to have told him the truth when I first refused him! but then, I never

thought we could meet again. I never dreamed that I should care about him. I have such an extraordinary longing to vindicate my real self — the self he so doubts and despises — before he knows the truth; and, if I do, how will he act? At present, he has some romance about me in his head, practical and imaginative as he is; how will it be when he knows who I really am? Will he shrink from the plebeian adventuress? He is very prejudiced; but he can love! Half past twelve. Tom is having a long talk with that dreadful man. I earnestly hope I shall not have to prosecute any one."

In a few minutes more Fanny came back.

"Oh, how glad I am to see you. I am dreadfully in the blues."

"Then it would have been much better for you to have been at church with me. The dean of some place preached such a splendid sermon. Made me feel as if I should like to clap some parts. The church was so crowded; lots of the county people were there. I saw Lady Styles and some ladies in the rector's pew. They put a strange gentleman into ours — a very elegant personage, I assure you. He was most attentive to me, and was good enough to offer me part of my own hymn-book! I don't think he imagined I looked sufficiently dignified to be even part proprietor of a pew. I found him there, and I left him there, for I came out quickly, hoping to find Tom."

"He has not yet returned," said Kate, languidly, "and as to your elegant neighbour, you had better see if your purse is safe! High-class pickpockets generally attend the preaching of eloquent divines — at least, in London."

"How disenchanting," cried Fanny, feeling rapidly in her pocket. "I thought he was an earl at least; not even disguised."

It was considerably past their usual dinner hour when Tom reappeared.

"I think you are right," said he to Kate. "He knows something of importance; but he is in a curious mood. Though well disposed to you, his ramshackle conscience seems to suggest some scruple about disclosing what he knows. He is in a state of great debility and penniless; though I can see by the condition of his wardrobe that it is not long since he was flush of cash. He had been drinking very hard; and now he has an extraordinary craving to go back to town with me. I shall indulge him, and settle him under

Mrs. Small's care for a few weeks, at any rate; he will then be safe, otherwise we shall lose him."

"But, Tom, this will cost you a quantity of money?"

"Not so very much; and when you have floored Sir Hugh, you shall repay me."

"Then, shall you take this man with you to town to-morrow?"

"Yes, by the eight o'clock train. Nothing later will suit me."

"And you have gathered nothing of what Trapeze really knows?"

"Nothing; or next to nothing. However, be sure of this, that I shall never relax my hold of him, till I *do* know."

"Thank you, dear Tom. And you believe it is not all talk, his boasted knowledge?"

"I do. The fellow *has* the secret, whatever it is."

CHAPTER XL.

THIS same Sunday evening settled down with the orthodox Sabbath gloom at Weston. Sir Marmaduke Styles's preserves were known to be well stocked, and his lively partner had a certain undercurrent of good-nature in her gossip that gave her popularity in the minds of her kinsfolk and acquaintance. The autumn parties at Weston were therefore not to be despised; and when Galbraith so suddenly deserted his friend Upton, the latter, having lost the incentive Hugh's company would have lent to an excursion in the wild west of Ireland, applied for extension of leave, and availed himself of Lady Styles's renewed invitation.

The household being conducted on the country type, dinner was celebrated on Sundays at half past six instead of half past seven — why, it would be difficult to explain, as the alteration gave no help to the well-disposed servants who wished to attend evening service; but as it inconvenienced all parties, the arrangement probably fulfilled its end: at any rate, in keeping up the custom, Lady Styles experienced the conscious approving glow that ought to wait on self-sacrificing Christianity.

The ladies had assembled in the drawing-room after dinner. It was a small party; three or four, besides the hostess, lounged comfortably round a glowing fire of wood and coal.

"I have heard the dean preach better than to-day," Lady Styles was saying; "he had not his usual fire and go."

"A country congregation is perhaps refrigerating," remarked the Honourable Mrs. A——.

"Ha, ha, ha! I assure you Pierstoffe considers itself peculiarly intelligent or intellectual."

"There is a great difference between the terms, dear Lady Styles," said Miss Brandon, a handsome woman in the earliest period of the "turn of the leaf," who knew and could do nearly everything, save how to make a fortune, or pick one up, and who had a sort of relative's right to be at Weston in the autumn.

"A distinction without a difference, I suspect, Cecilia; at any rate there was a very full attendance. I saw all the principal tradespeople there except my *rara avis* of the Berlin Bazaar; but her friend and partner represented the house. By the way, if I am not much mistaken, they put Colonel Upton into her pew. I wish he could see the young widow. I should like to know his opinion of her."

"You must know," said Miss Brandon, in reply to an interrogative elevation of Mrs. A——'s eyebrows, "Lady Styles has a sort of *rêve de quinze ans* about two women who keep a fancy bazaar here. They certainly appear very distinguished compared with the Pierstoffe standard, but I think their elegance would pale beside Madame Elise's or Howell and James's young ladies. Their principal charm consists of a mystery which the joint efforts of Lady Styles and Doctor Slade have failed to elucidate."

"Dr. Slade!" cried her ladyship; "pray do not imagine I am a gossip like him. His gossip is of the commonest type — mere surface sweepings to amuse his lying-in women with." When speaking warmly, Lady Styles was not always limited by sensitive delicacy in her phraseology. "He always imagines the most commonplace solution even to the most piquant mysteries. He has no grasp of mind, no real experience of the world."

"Dr. Slade is the man in a shirt-frill, who is dining here to-day?" put in Mrs. A——.

"Yes, and what an enormous time they are sitting," continued the hostess. "Barnes," to the butler, who appeared with tea, "have you taken coffee to the gentlemen?"

"Yes, my lady."

"It is always the case; that man always keeps Sir Marmaduke. He has a lot of old stories which Sir Marmaduke is accustomed to laugh at, and likes to hear over and over again. But for all that he

is clever as a medical man. I believe his treatment of Sir Hugh Galbraith was masterly — he had concussion of the brain, compound fracture of the arm, various contusions, and I do not know what besides, and in two months he was nearly well. By-the-by, he — Galbraith, I mean — lodged at my charming widow's, and I believe he never saw her but twice all the time he was there, she is such a prudent, dignified creature. Ah, here they are at last. Colonel Upton, did they not put you in the Berlin-wool pew at church to-day?"

"I cannot say," he returned, coming over and sitting down at the opposite side of the ottoman on which Lady Styles, in the splendour of her dinner-dress, was spread out. "I saw no Berlin wool there, only a very pretty, piquant little girl. Who is she? The rector's daughter?"

"Nothing of the kind. Do you not remember, when you were last here, coming with me to the Berlin Bazaar and buying a purse, and how disappointed you were because you could not see your friend Galbraith's landlady?"

"Yes, very well."

"Then the pretty girl is the assistant at the bazaar. I wonder why Mrs. Temple was not there. Perhaps she has gone away again."

"Has she been away lately?" asked Upton, carelessly, as he helped himself to sugar.

"She was in London about a fortnight ago."

"I am really sorry to miss seeing this object of your speculations," said Upton, meditatively, while he stirred his tea, "I suppose she often runs up to town?"

"No, scarcely ever. At the change of seasons — and —"

"This last expedition of hers," struck in Dr. Slade, "was rather disastrous — she had her pocket picked, and lost five pounds."

"You don't say so, doctor; are you sure? She has never mentioned the matter to me."

"Oh, I am quite correct, I assure you. I met little Miss Fanny, with a face of woe, going to the post-office for an order to replace it."

"Really, I am quite sorry for her," said Lady Styles.

"A serious loss for a Berlin bazaar," returned Upton. "Pray, when did it occur?"

"About three weeks ago. Why? did you hear anything of it?"

"No — nothing," slowly and thoughtfully.

"I do protest, Willie," cried Lady Styles, with much animation, "I believe you know more than you say, perhaps you were the pickpocket yourself—just to get an introduction! Do make a clean breast of it."

Upton laughed. "I have not your acute curiosity about this fair shopwoman," he said, and he relapsed into silence, though an amused smile lingered on his lip and in his eyes.

"Come, doctor," said Sir Marmaduke, who was setting forth the chessboard, "you must give me my revenge to-night."

The Honourable Mrs. A—and Miss Brandon, followed by two or three young men who completed the party, sauntered to the music-room, whence the sound of sacred songs soon issued.

"Pray, Lady Styles," said Upton, interrupting a rambling, highly-coloured version of the quarrel between Galbraith's sister and her husband,— "pray, what became of your nephew, John? I remember thinking him such a fine fellow when I used to meet him here years ago."

"My nephew, John," repeated Lady Styles, in a tone of high-pitched surprise. "What put him into your head? He has disappeared I do not know how long. He was a nice creature once. All you scamps are. But he went to the bad completely; cost his mother a heap of money, and died abroad—D. T., I believe."

"Did he not marry?"

"Well, I am not sure. I think it was doubtful."

"I heard he did."

"There were all kinds of reports; but I am sure I have not heard his name, nor any mention of him, for twenty years."

A pause, which was broken by Upton.

"If you will give me a mount, I think I will ride over to Pierstoffe, and reconnoitre the Berliners."

"My dear boy, let me drive you over."

"No, my gracious cousin, I prefer doing the part of a single spy. You shall then have the benefit of my pure, unsophisticated impressions."

"Very well, you shall have my groom's horse; it is the best in the stable."

But the next day was wet—not pertinaciously wet—what our northern relatives call "an even down-pour," though sufficiently moist to check Colonel Upton's fancy for a solitary ride.

It was the Wednesday after Tom's visit, he had sent a hasty line announcing his safe arrival with his precious charge, and Mrs. Temple had resigned herself to an

interval of patient waiting. The shop was empty, and Fanny had retired into the shop-parlour in order to trim a new straw bonnet in the latest fashion. Fanny sang to herself in a subdued tone.

Her heart was very light. She was not without sympathy, sincere sympathy, with Kate's depression; nevertheless her own prospects were so sunny that for the moment she doubted the possibility of serious sorrow. All would come right for Kate also, and that delinquent Galbraith, whom she could not help liking. She could give him plenary absolution too.

"Miss Fanny," said Mills, coming in, with the well-known curl on her mouth, which indicated distrust of and contempt for the world in general. "There's a gentleman—leastways he has spurs and a whip—wants to see you."

"To see me? Who is he, Mills?"

"I duno, Miss; a pickpocket for all I know. You had better not—" But Mills's wise counsels were cut short by the appearance of the individual in question, whom Fanny, had she been left to her unassisted conclusions, would have considered a distinguished-looking man. Prompted by Mills's doubts she fell into a state of fear and confusion. Was he an emissary of Ford sent to discover and annoy Kate? Was he a detective despatched by Galbraith's lawyer, with the uncanny prescience of his tribe, to find out what was going on? She stood up, bonnet in hand, looking prettily bewildered.

"I beg your pardon," said Upton, for he was the intruder. "I understood you were at home, and that I might enter."

Fanny, still holding her bonnet, which was filled with blond lace, ribbon, and flowers, made a little nervous curtsy, while Mills officiously dusted the chiffonier. There was an instant's pause, broken by Fanny's saying in an accent of unmistakable surprise, "You wished to see me?"

"I do,"—a glance at Mills, who, finding no further excuse for remaining, departed with a portentous frown to Fanny.

"I took the liberty," resumed Upton, when they were left alone, "to look into your prayer-book, when you left your seat last Sunday. A great liberty, I acknowledge; yet you must allow the temptation to ascertain my charming neighbour's name was a powerful motive," concluded Upton, with an insinuating smile.

"Well," exclaimed Fanny.

"You left your prayer-book behind you," drawing it from his pocket. "I confess, then, to having opened it, and

read this inscription." He pointed to the flyleaf as he spoke, whereon was written, "John Aylmer to his wife Catherine, Gangepore, August, 1836."

Fanny's eyes dilated as she gazed upon it with doubt and dread. "I am going to be cross-examined," she thought, "and I shall make a mess of it."

"I see," said she, looking blankly up in her interrogator's face, "and what then?"

"Have I the pleasure of speaking to Miss Aylmer?" said Upton blandly.

"No, no, my name is not Aylmer!" cried Fanny, breathless.

"My reason for asking," continued Upton, "is that a distant relative of mine of that name died in India, I imagine somewhere about that date," laying his fingers upon it.

"His relative indeed!" was Fanny's mental commentary. "I am sure I know nothing about it," she said, aloud. "The book is not mine. It was quite by accident I used it. I know nothing about it. I — stopping in confusion.

"What is your name, may I ask?"

"Oh, Jenkinson," cried Fanny, with a desperate determination not to tell the imagined detective a word of truth.

"Perhaps the lady who—who keeps the shop could tell me something about these names," persisted Upton.

"No, indeed she could not," said Fanny, resolving at all risks to shield Kate from the terrors she was undergoing. "And you had better not see her. She is very clever, and would see through you in a moment."

"That is quite possible," exclaimed Upton, a good deal surprised; but while he spoke Fanny's blond lace fell to the ground, and the gallant colonel hastening to restore it, contrived to entangle the delicate fabric in his spurs.

"Oh, dear," cried Fanny, crouching down to rescue her treasure. Upton stood tolerably still, but as Fanny bent round, he could not help half turning to watch the pretty, troubled face. "Pray stand steady," she exclaimed, "or you will tear it. I thought it was your work to get things out of tangles, instead of into them."

"My work!" echoed Upton, greatly puzzled. "What do you take me for, then?"

"Oh, I think I know very well! You fancy I am a simple country girl, but I can guess what you are—at least, I think I can!" with dignity and triumph.

"I suppose a long course of regimental

drill leaves its stamp on a fellow?" said Upton, good-humouredly.

"Regimental, indeed!" cried Fanny, with indignation. "That will not do."

"I see I have offended in some way," returned Upton, insinuatingly. "And I assure you I have but two motives in my visit: first, a strong wish—irresistible, I confess—to make your acquaintance; secondly, a sincere desire to know the history of this prayer-book."

"He has the impudence to pretend he is smitten with me," thought Fanny, wrathfully. "I consider it altogether unwarrantable," she said, aloud, "your coming here to try and find out things from me! I daresay you thought you had an easy case, but——" Fanny had warmed up, and was now reckless of consequences.

"Will you be so very good as to say for whom you take me?" asked Upton, with grave politeness.

"A detective of some kind sent by——"

A burst of good-humoured laughter from Upton arrested any imprudence into which Fanny might have hurried.

"I am infinitely flattered," he said, drawing out his card-case. "Allow me to introduce myself."

"Colonel Upton," cried Fanny, glancing at the morsel of pasteboard he held forth, while a quick blush spread over cheek and brow. "I am so surprised! Are you Sir Hugh Galbraith's friend we used to write to for him?"

"The same. And I must say such a premium on breaking an arm as your secretaryship, is a temptation to fracture one's bones I never foresaw."

"I am afraid I spoke very rudely," said Fanny, with evident contrition; "but I felt so sure you were a detective—though now I see you are quite different."

"At any rate, you have taught me a lesson of humility I shall not soon forget," returned Upton, pleasantly. "Perhaps you will have no objection to give me some information about the prayer-book, now you know who I am?"

"Indeed I must not—I mean I cannot!" And Fanny stopped, fearful of having committed herself.

"Of course I have no right to press you," returned Upton, noting the change of phrase.

"But wait," cried Fanny, anxious to atone for her scant courtesy; "I will call Kate—Mrs. Temple—and you can ask her. Pray, sit down."

So saying, she rushed into the shop. "Do come, Kate. There is Colonel Up-

ton asking all sorts of questions about your old prayer-book. And I have been so rude! I thought he was a detective. Was it not *dreadful*? Pray go to him, and I will stay here."

To Kate's hasty, astonished queries Fanny could only reply, "It is Colonel Upton—do go and speak to him."

Thus urged, Kate went into the parlour and stood face to face with the supposed detective.

There was a nameless something, a gentle, composed dignity in her bearing that Upton at once recognized, and his own manner changed insensibly. He rose and stood silent, while he gazed keenly at the fair, quiet face opposite him.

"I have to thank you for restoring my prayer-book," said Kate, taking the initiative.

"It is yours, then. May I ask if this 'John Aylmer,' whose name is written here, is any relation or connection of yours? Do you know anything of him, in short?"

Mrs. Temple did not reply instantly. She paused, gazing earnestly at her interrogator. "May I ask why you inquire?" she said, at length.

"Because I had a relative of that name in India at this date; indeed, to the best of my belief, he was in this very place"—pointing to the inscription. "He is dead, and I have heard nothing of him for years. Yet I should like to know if you can give me any traces of him or his family."

"And you were related to a John Aylmer?" said Mrs. Temple. "How? In what degree?"

"That I can hardly say," returned Upton, smiling, and looking in vain for an invitation to sit down, for he was greatly struck by Mrs. Temple's appearance and manner. "I never could thread my way through the maze of cousinly degrees. But the man I mean was a nephew of Lady Styles, and she is a second or third cousin of my father: so you see we are all cousins together. It has roused my memory or curiosity to find his name in the prayer-book Miss Jenkins left behind."

"A nephew of Lady Styles," repeated Mrs. Temple, in much surprise, not hearing the conclusion of his sentence.

"Then you know something of this defunct kinsman of mine!"

"Whatever I may know, Colonel Upton," she returned, decidedly, though not uncivilly, "I do not feel at liberty to tell you now at any rate, so you must ask me no more questions."

"Certainly not, if you put it in that way," said Upton, bowing and handing her the prayer-book. "However, I fancy you put a slight emphasis on 'now.' Pray, will you allow me to call again, when perhaps you will be at liberty to tell me a little more?"

"No," said Mrs. Temple, a sweet, arch smile softening the rugged monosyllable. "I shall not be able to tell you for some time. But if you really care to hear, leave me your address, and I will write to you."

"Yes, I care very much, and will be greatly obliged by your taking that trouble. Perhaps you would be so good as to write my direction?"

Kate opened her blotting-book unsuspiciously, and traced the words as he spoke them—"Colonel W. Upton,—th Hussars, Cahir, Ireland"—under his eyes.

"Not the first time I have seen your writing," he said, pleasantly. "I am almost sorry my friend Galbraith is able to manage his own correspondence—reading his letters has again become a difficulty, whereas—" He stopped abruptly, too genuinely good-natured not to regret having in any way disturbed Kate's equanimity; for, in spite of her strongest effort at self-control, a quick burning blush overspread her cheeks, and even the stately, rich white throat that rose over the quaker-like frill which adorned the collar of her dress.

"I saw Galbraith in town the other day," went on Upton, hastily, "and he seemed all right. You must have taken capital care of him, Mrs. Temple! I really think I shall hunt here this season again, if only for the chance, should I be spilled, of falling into your hands."

"We could do very little for Sir Hugh Galbraith," said Kate, in a low voice, but recovering herself; "nature and his own servant seemed to accomplish everything."

She stopped, and Upton felt he ought to go, but preferred to stay. "I was sorry to hear you had met with such a loss," he continued, for the sake of something to say; "have you found any trace of your purse yet?"

Again Kate coloured; this time with an acute feeling of annoyance. Galbraith must have spoken somewhat freely of her to this chum of his; and the care and delicacy with which he seemed to guard their intimacy, and which had always touched her, must have been in some degree a sham. "I have not," she returned, coldly, adding, with a sort of haughty humility, "although, as you are no doubt aware,

Sir Hugh Galbraith did his utmost to assist me!"

"Did he?" exclaimed Upton, with such unmistakable surprise that Kate instantly felt she had made a false move.

"Ah, he is not a bad fellow, Galbraith," continued Upton, "though he seems rather a rough customer. Well, I am afraid I have trespassed too long on your time, Mrs. Temple. I must bid you good-morning; and you will, when it suits yourself, give me the history of the prayer-book?"

"I will, Colonel Upton. Meantime will you grant me a favour?"

"It is granted," said the colonel, gallantly.

"Then, if you have not mentioned this matter of the prayer-book to Lady Styles, pray do not. She is one of my best friends here, but you can imagine the effect of such partially admitted knowledge as mine upon her. I should not be able to call myself or my shop or anything else my own till all was revealed."

"Gad, she would hunt up the scent like a bloodhound," cried Upton, laughing. "No, no, Mrs. Temple, that would be too bitter a revenge even for having been taken for a detective. Your charming young friend owes me some reparation. Pray tell her so, with my best respects. So good-morning, Mrs. Temple, and *au revoir*—for I have a strong presentiment that we shall meet again!"

With a low bow, Upton retired, leaving Kate still standing in deep thought. No, Galbraith had not made her a topic of idle talk. She had betrayed herself; but Upton, however he heard of her loss, knew nothing whatever of Galbraith's communications with her in London.

"Fanny," she said, slowly returning to the shop, "did you ever tell Lady Styles that I had my pocket picked?"

"No, indeed I did not!"

"Then who did you tell?"

"Not a creature: that is, yes!—now I remember it. The morning I was going for the post-office order for you, before you had told me not to tell any one, I met old Dr. Slade, and I told him."

"Ah!" said Mrs. Temple.

"Was it very shocking?" asked Fanny, in deep contrition.

"No, never mind. Do you know, Fanny, I quite like that Colonel Upton. I believe he is a gentleman."

"To be sure he is; and to think of my taking him for a detective! I am sure I shall never look him in the face again."

"You will never be obliged, I imagine," said her friend.

Meantime, Upton strolled slowly towards the hotel where he had put up his horse, meditating more profoundly than was usual with him. "I believe I have a clue to the maze," he thought. "By George, I fancy Galbraith has caught it hot and strong!—that Mrs. Temple is just the kind of woman to inspire a great passion, and Hugh, in spite of his cold airs, the very man to feel one. What with his pride and hers—for she will stand no nonsense, I suspect—there will be the devil to pay. I am certain he forsook me that day at H— to go after her. Ay, it was the next morning he was going down to Scotland Yard; it is as plain as that pretty little Miss Jenkins's *nez retroussé*! Galbraith has had a squeeze: he had better go abroad; change of air and scene is the best remedy; but to apply that nostrum in such a case, the plan would be to take a new love. I have a great mind to offer a remedy to the fair widow in the shape of myself! I should not dislike making love to her at all. There is a world of undeveloped feeling in her eyes. What a 'cheerful visitor' I might make myself to Lady Styles if I were to sit down and treat her to a dish of my surmises and discoveries! But how did that Mrs. Temple come to possess poor Jack Aylmer's prayer-book? I should like to ask Lady Styles more about him and his possible marriage—but no, I have promised silence, and will keep my word in the spirit as well as the letter."

CHAPTER XLI.

IF Kate and Fanny, especially the former, waited with almost sickening anxiety for news of Tom's proceedings, they had at least the comfort of full faith in him. No doubts of his ardent friendship or his earnest action, complicated their pangs of endurance, even when Wednesday and Thursday brought no tidings.

In the mean time, Tom, who was overwhelmed with work on his own account, contrived to see Trapes every day, but without extracting any tangible information from him. He (Trape), though recovering, was feeble, and always spoke as if it was his intention to "make a clean breast of it as soon as he had settled a little business he had on hand," or "as soon as he was able to go into the city to see a fellow he wanted to speak to."

"Come, now," cried Tom, at last, "do you want to see Ford? for if it is that, I will call and tell him. I shall be passing his place this afternoon, and I suspect it

will be some days before you are equal to the journey due-east."

To this, after some demurs, Trapes assented. "Don't you let on that I have seen Mrs. Travers," he urged.

"Of course not. Ford is not to know that she is in England."

"Ay, to be sure. Perhaps, after all, Reed, I had better wait and write him a line."

"No, no, have him out here, and say your say! Then make a clean breast of it, and you will be ever so much better."

Tom was growing very anxious for Trapes's revelations. He feared a relapse of low fever or a sudden failure of intellect. He was evidently linked in some strange way with Ford; how, it was impossible to conjecture. Tom therefore made it a point to call at Ford's office, and on mounting the stairs, was struck by the evident increase of the ex-clerk's business: various anxious-looking men—some with pocket-books, some with papers in their hands—were coming up and down; the office-door was open, and several persons were speaking to the clerks or writing on slips of paper.

In the middle of the office stood a very respectable-looking, gentlemanlike man, older than Ford himself, evidently the manager. He seemed deeply engaged with an irate personage, whom he was endeavouring to soothe, and who held out an open letter. "I see, sir, that letter is very conclusive," he was saying, "but you need be under no apprehension."

"The delay is most annoying!" returned the other, a young man got up in a "country-gentleman" style. "You see he promises to procure me eight hundred pounds' worth of Turkish Fives and Russians, at once. Now, there was a fall of an eighth on Friday in one, and a sixteenth on Monday in the other, and he missed both opportunities!"

"I really am not in a position to assert anything," returned the manager. "I know Mr. Ford transacted business on the Stock Exchange on Friday and on Monday, but, being suddenly called away, he had not time to leave me full instructions. If you will call to-morrow, I shall, no doubt, be able to arrange matters to your satisfaction, and make the purchases you require. I shall have heard from Mr. Ford by that time."

"I hope so," said the other. "It is altogether very extraordinary;" and, with a running growl, he turned to leave, very nearly knocking against Tom Reed, who now advanced.

"Is Mr. Ford away, then?" he asked.

"Yes," said the manager, looking sharply at his interrogator. "Obliged to run over to Vichy for a few days' holiday, but I shall be happy to do anything for you in his absence."

"Thank you," said Tom. "I only wished to speak to him on a private matter."

"Private," repeated the manager, thoughtfully. "I think I remember your coming here with Mr. Ford one day last spring."

"I did do so."

"Then, perhaps, you would do me the favour to call to-morrow, either early or after five? You might—that is, I shall probably be able to tell you something of Mr. Ford's movements." He paused, and then added, "I should feel obliged by your calling."

"I will, then, but it must be nearer six than five," returned Tom, feeling that the request was unusual. So saying, and placing his card in the chief clerk's hand, he left the office.

"I wonder 'wot's up'!" he pondered, as he rolled westward in the first cab he could find. "There is something wrong with Ford! I wonder if he is gone mad? There was a very suspicious glitter in his eye the last time we met." So reflecting, he called to the driver to set him down in B—— Street, where he spent a few minutes in explaining matters to Mr. Wall.

"Very well, Mr. Reed—very well," said the lawyer, "but I really begin to have serious doubts that this man Trapes knows anything at all! However, as Mrs. Travers seems content to await your rather tardy operations, I have no right to find fault. But if I find you have nothing more tangible to communicate by Saturday, I really must summon Poole! That is our line, I am convinced."

"No doubt, Mr. Wall, you will be all right in that direction; meantime, I hope to bring you a lot of information by Saturday." And Tom hurried off with more of hope in his manner than in his heart. It was too provoking to feel the goal almost within his grasp, yet evading his touch!

The next day was excessively occupied; and six o'clock had tolled from the great clock of St. Paul when Tom Reed ran hastily up the stairs to Ford's office—those on the ground and second floors were already closed—and when he reached the door he met the manager just issuing forth. "I had given you up," he said, quickly, and in a different tone from that in which he had spoken the day before. "Pray step in."

Reed followed him. An old clerk was in the act of turning off the gas: "One moment, if you please," said Reed's conductor; "I want to speak to this gentleman. But you need not wait; I will give the key to the housekeeper as I go down."

The old clerk bowed and withdrew, and Tom could not resist a chill, creepy sensation, as if on the verge of a discovery—whether of a crime or a tragedy!—while his companion raked the fire together and threw on some more coals.

"May I ask if you have known Mr. Ford long?" he asked, sitting down at one of the high desks.

"Not very long, Mr. —," returned Tom.

"Rogers," said the other, gravely supplying the word. "My name is Rogers."

"Well, then, Mr. Rogers, I have not known Mr. Ford more than a couple of years."

"But you knew him when he was at Travers's? My reason for asking is, that I am exceedingly perplexed; and not knowing any friend of Mr. Ford's to apply to (for he led a singularly isolated life), I was in hopes you might afford me such information. The fact is, I fear he has committed suicide!"

"Suicide!" cried Tom, aghast.

"I am not sure. I will tell you the whole story; it will soon be noised abroad. I had thought him looking very wild and haggard for a few days, and on last Saturday was rather pleased to hear him say he would go over to Vichy for a week, just to recruit. There was really nothing to prevent him—no business I could not do; so he said he would leave me a power-of-attorney to sign checks and letters, etc. On Monday morning accordingly, he came in early and transacted a good deal of business, gave me the power-of-attorney to act for him, and started off with one of those portmanteau-bags to catch the boat-express from London Bridge, saying as he went, 'You shall hear from me fully on two or three points towards the end of the week;' and I thought no more of it. But on Tuesday evening I had occasion to go to the strong-box for some coupons, and to my great surprise I found all the Continental securities—Turkish and Egyptian bonds, and a few Americans—which I knew were safe there on Friday evening, had been removed—altogether between two and three thousand pounds' worth. I confess I felt great uneasiness, not knowing Mr. Ford's address; but, remembering his last words, I hoped the morning's

post would bring me his promised letter. It did not; but in the afternoon, shortly before you called, I received from his housekeeper, a respectable, elderly woman, this long letter."

"This is very strange! Has he bolted then?" cried Tom.

"Not in the ordinary sense. I do not feel at liberty to show you the letter," continued Mr. Rogers; "but it is to the effect that I am to use the power-of-attorney to settle his affairs; that he has left ample funds to meet all claims upon him; that I am to act as his executor, for I shall never see him again in this life. I went up to his place last night, and found from the housekeeper that he had not taken any clothes with him, and that on Sunday night he sat up late writing. On quitting the house he had said: 'if I do not return on Wednesday evening, send this letter'—which he gave into her hands—in the course of the next day to Mr. Rogers," which the housekeeper accordingly did."

"An extraordinary affair!" exclaimed Tom Reed, rising and coming over to the desk at which the other was sitting. "Do you think it was his intention to commit suicide?"

"I do."

"I do not," returned Reed, quickly. "His object is to escape."

"Escape what?" asked the other, rather indignantly. "A more honourable, straightforward man, never existed! Do you know any reason why he should fly the country?"

"No, Mr. Rogers, I do not. I only judge from what you tell me. A man who is about to terminate his existence does not want a capital of two or three thousand pounds in the world he is going to!"

"Then you believe he removed all the foreign securities?"

"Yes; don't you?"

"I do not know what to think. I hoped you might have known something of poor Ford's real circumstances. He lived singularly alone. I have telegraphed to a brother of his in Lancashire, and have set the police on the track, so far as I know it."

"Tell me, Mr. Rogers, has a man called Trapes—a seedy, flashy, turfy-looking fellow, been in the habit of coming here occasionally?"

"Not of that name," he answered, "but decidedly of that description. He called himself Jones. However, I daresay he went by various names. Yes, a fellow like what you describe has been in here now

and then. Sometimes he would be here two or three times running, and would then disappear for a considerable period. Why, do you connect him with Ford's disappearance?"

"I have a vague idea—mind, very vague—that he has something to do with it. Should I ascertain more I shall let you know."

After some further desultory talk and conjectures, Reed took his leave, very much astonished at the result of his inquiries, and resisting as illogical the tendency of his imagination to connect Ford's strange disappearance with Trapes, and Trapes's alleged knowledge of the will.

He was determined to lose no time in communicating his curious intelligence to Trapes, for he could not help feeling that it would affect his broken-down *protégé* strongly. But the editor of a morning paper is a slave to the thunder he wields, and it was past Trapes's late breakfast-hour before Tom could make his way to him next day.

"He was very bad last night, sir," said the landlady, as she opened the door, smiling, as she ever did upon the favoured Tom. "He had such severe spasms as it took near a pint of the best brandy before he came right, and then he begged and prayed, and cursed and swore, because I took away the bottle, so that, if my son had not been at home, I don't know what I should have done. But he is as mild as new milk this morning, and I have given him a cup of fine, strong tea, but, bless ye, he won't taste a bit!"

"Now, Mrs. Small," said Tom, sternly, "Mr. Trapes must have no brandy without medical advice. Provide it at your peril. I will not pay for it, remember that!"

He opened the door of the little sitting-room, and found Trapes—a pipe in his mouth, and *Bell's Life* in his hand—leaning back in one chair, his feet elevated on another.

"Well, so you never looked in last night," he began, in a querulous growling voice.

"My good fellow, I have brought you news enough to atone for any shortcoming. Your friend Ford has disappeared—decamped—is not to be found, in short."

Trapes started up, dropped his paper and his pipe, which smashed on the fender. "Bolted! What then! How the deuce did he get the scent of what was brewing?"

"I know nothing of the whys and wherefores," returned Tom. "I only

know what his head clerk told me," and he proceeded to repeat what he had learned.

"And has he smashed for a large amount?"

"I don't believe he has smashed at all. I believe no one has any interest in hunting him up, except his attached relatives—unless it's yourself, Trapes—for I strongly suspect you could read the riddle."

"I am not so sure of that. But it's an extraordinary move on the part of Ford. To be sure, he threatened; but," checking himself, "that is nothing to the point."

He suddenly lapsed into silence, picking up the fragments of his pipe in an absent, mechanical manner. "And that fellow, Rogers, thinks he has made away with himself?"

Tom nodded, watching Trapes, who seemed from the changes of his countenance to be undergoing some mental struggle.

"Well, whether he has or not," cried Trapes, at length, with an oath, turning his face to Tom, "it seems as if his game was up, and I will make a clean breast of it!"

Whereupon he launched into a long narrative, at the end of which, and some talk with his friend, Tom administered refreshment in the shape of cold beef and a judicious allowance of brandy-and-water. A cab was summoned, and Tom Reed carried off his prize in triumph to Mr. Wall.

It was not until the afternoon post on Saturday that Kate reaped the reward of her faith and patience. The letters were unusually late, and seeing a packet of considerable dimensions, Mrs. Temple had the self-control to put it in her pocket till "closing-time" set her free to plunge into its contents. Indeed, she felt she dared not commence its perusal until she was safe from the eyes of her customers. Then, with closed doors, and her faithful little friend by her side, she read the following particulars, which are here set forth free from Tom's introductory and explanatory remarks.

About the end of February succeeding Mr. Travers's death, Trapes, who had been suffering from a run of ill-luck, happened to pitch his tent—*i.e.* take lodgings—in a small street off Gray's-inn-lane, where a former acquaintance—a law-writer in very low circumstances, named Nicholls—managed to drag on a wretched existence. The poor fellow,

moreover, was in a rapid decline, and Trapes, with the queer, incongruous generosity which flecked his reckless, ignoble nature here and there, was kind to the sufferer and shared what trifling supplies he managed to pick up with him; in return, the consumptive scrivener was glad to divide any windfall that came to him. The partners were, however, reduced to great straits; when one day, as Trapes returned from an aimless, hopeless walk, the law-writer told him he had written to a former employer for help, and the employer had replied, promising a visit.

"Now he cannot come and not leave a blessing behind," said Nicholls. "He is coming this evening, and as he is uncommon particular, and a bit of a prig, I think you had better keep out of sight;" to which Trapes acceded. When the visitor had departed, Nicholls informed his friend that he had made him a present of a sovereign, and promised him a job of writing.

"Now I really am not equal to this," said the poor scrivener; "but I saw that his mind was set on it, and that I should get very little out of him if I did not agree. So I thought we might do it between us, for you can write a legal fist; but I did not mention you, for it strikes me there's some mystification in the matter."

In due time the "job" was put in hand. It was to copy out and engross a will, simple and short, with blanks left for all names, sums of money, and dates.

Some slight delay occurred in procuring parchment, etc. However, the task was accomplished in the given time; but by Trapes, as Nicholls, in going to purchase the materials, caught cold, and was really incapable of holding a pen. The gentleman for whom the work was done seemed anxious for speed and secrecy. He came himself for the document, and was satisfied with the manner in which it had been executed. He seemed, Nicholls said, concerned to see him suffering so much. He paid liberally, and called twice again. On his second visit he found Nicholls on his death-bed, and Trapes saw him distinctly for the first time. Very few words passed between them. The employer expressed becoming sympathy with the employed, bestowed an alms, and departed a couple of hours before the sufferer breathed his last, leaving no clue by which Trapes (had he wished it) could identify him. Nicholls had always carefully abstained from mentioning his name.

But Trapes forgot all about him, and scrambled on through another jagged, ragged year, when accident threw him

once more into Poole's society, from whom he heard much gossip respecting his former acquaintance, Tom Reed; of his intimacy with Mrs. Travers (of which Trapes was already aware, forming his own conclusions thereon); also of the general upset in "the house" by the finding of a new will, and the disappearance of Mrs. Travers. This talk of wills did not recall any associated ideas to his muddy brains; he only chuckled with dull, gratified spite to think that Tom Reed was not to have his fortunes crowned by marriage with a rich, beautiful widow after all.

It was not till the previous spring that his curiosity and self-interest were roused by coming suddenly upon Tom Reed in evidently close and familiar conversation with the benevolent individual who had befriended Nicholls.

His visit to Reed followed. Directly he became aware that Ford, formerly manager at "Travers's," and the defunct scrivener's employer were one and the same, a light broke in upon him; ease, indulgence, fortune, were in his grasp! "That fellow Ford" had of course been employed by the baronet, and the thieving rascals should pay for their villany by enabling an honest, well-disposed party (himself) to enjoy a little peace and comfort! With a glow of conscious virtue he proceeded to expend a shilling of the sovereign requisitioned from Tom for permission to peruse the "last will and testament" of Richard Travers, Esq., late of St. Hilda's Place, E. C., etc., etc. A glance at the document confirmed all his suspicions. It was his own work, written nearly three months after the death of the supposed testator!

A visit to Ford, and an immediate improvement in the appearance of the fortunes—but, alas! not in the habits—of the lucky Trapes ensued. It was evident, even on his own showing, that he had extracted quantities of money from Ford, besides making life a burden to him.

At last Ford rebelled, and declared that, rather than drag on such an existence, he would give up the game, make a clean breast of it, and defy Trapes.

This suggestion by no means suited that ingenious individual. He therefore strove to collect all moneys due to him by hook or by crook, in order to give Ford time to cool and repent his rash intentions. With a view to turn what he would probably term "an honest penny," he attended the Stoneborough races, and there victimized young Turner, who, not being able to pay up in full, in an unwary mo-

ment gave his address at Pierstoffs. Thither Trapes hunted him, and thus stumbled upon Fanny. He knew of her relationship to Tom, of her connection with Mrs. Travers, and once more he felt on the road to high fortunes!

Such were the principal facts contained in Tom's letter. It must be added that a tardy sense of compassion for Ford seemed to have induced Trapes to refrain from speaking out until he could give him some warning of the crash that was impending.

CHAPTER XLII.

WITH white lips, and in a low, parched voice, Kate read these astonishing details to Fanny, who, at the same time perused the letter over her shoulder. When it was ended, the friends looked at each other, and Kate, resting her elbows on the table, covered her face with her hands.

"The murder is out at last," exclaimed Fanny; "and," with a hearty kiss, "the queen shall have her own again."

"Thank heaven!" cried Kate. "Mr. Ford is gone. I shall not have to prosecute him. How could he have permitted himself to act so basely, so treacherously, so fatally for himself. I am very glad he has escaped."

"Well, so am I; but he deserved to be punished. I wonder what will be done next. I wonder if Sir Hugh will dispute your claim. But he cannot. I wonder——"

"You see," interrupted Kate, "Tom says, 'We are rather stunned at present. But Mr. Wall will write to you as soon as he has consulted counsel, and made up his mind.' We must wait—wait still. All I hope is, that there will be no bitter, costly lawsuit. But how will Hugh Galbraith take it? I wonder where he is?"

"Then he did not leave his address when you parted," said Fanny, demurely. "You really must forgive him, and make friends, now you have beaten him."

"You must remember my victory is not an accomplished fact yet. But as to Hugh Galbraith, I have forgiven him long ago. Still, he has not ceased to trouble me, I fear."

"And, dear Kate, what shall you do? Shall you live in the grand Hereford-Square house, or——"

"Dearest Fan, how far ahead of present probabilities you go. There are quantities of things to be done yet."

"If I were you I should advertise the Berlin Bazaar for sale at once; that would be doing something."

"Yes. Whatever happens, I shall not, of course, stay here when you are married. But, Fan," beginning to re-read the letter, "what an extraordinary history this is! With what skill and cunning Mr. Ford appears to have laid his plans! He must have thought that the secret of his iniquity was buried with the poor scrivener; and in his turn *he* thought that in concealing Ford's name he had kept full faith with his employer."

They talked far into the night, and then retired to dream, and conjecture even in sleep.

It was long, however, before tired nature's restorer visited Kate's eyes. Over and over again she pictured Galbraith receiving the news that fortune's brief smile was withdrawn, and replaced by her heaviest frown. The stern impartiality with which he would set himself to sift the evidence, and, seeing it incontrovertible, the silent endurance with which he would submit to his fate. And all the time no sympathizing friend near to take his hand and say, "It is hard to bear."

Her heart throbbed, and the tears welled over on her eyelashes with the intensity of the longing she had to be with him, to assure him that all should be well, if he would only be reasonable; to tell him that she understood him and felt for him, and would be faithful to him. One more crisis was to come, and she knew it would be the greatest of her life. He must be told, sooner or later, who she really was; and everything depended on how he took that information.

The succeeding fortnight went by with the strangest mixture of flight and dragging. Every day that was unmarked by a letter from Tom seemed an age of inaction, and yet at the end of the week it seemed but an hour since the first great news of the solving of mysteries had arrived. Still no tidings of how Hugh Galbraith had borne the bursting of the storm or if he had even heard of it.

It was from Lady Styles the first rumour reached Mrs. Temple, more than a fortnight after Upton's visit.

Her ladyship, contrary to her usual custom, had driven into Pierstoffs before luncheon, in order to take some departing visitor to the train.

"Did not expect to see me at this hour," she said, waddling in with her usual vivacity. "Do you know, I think it is very foolish to come out as late as we all do in winter; but it can't be helped. My coachman would give me notice if I took him out every day at eleven, and James

would rebel. Yet in November it is almost dark before one can order the carriage round. And how are you, Mrs. Temple? I cannot say you are looking very bright. Any news of your purse?"

"None, I am sorry to say, Lady Styles."

"Sorry to hear it. I don't think I have seen you since Colonel Upton paid you a visit. By the way, it's a mistake your not keeping gentlemen's gloves. Lots of the men staying at Weston and other places would make quite a lounge here, and buy heaps——"

"That is exactly what I should not like the Berlin Bazaar to become, Lady Styles," returned its mistress. "It is a lady's shop *par excellence*."

"I am sure you are the most prudent young woman in the world; still I am certain a mixed multitude pays. Do you know, I do not think I should make a bad woman of business myself."

"Far from it, Lady Styles."

"Well, I want two pairs of black gloves stitched with red. Have you any at two-and-ninence? No? really, Mrs. Temple, your prices are extravagant; a Bond-Street standard for Pierstiffe won't do, I assure you. Well, have you any dark violet at three-and-sixpence?"

Mrs. Temple could accommodate her ladyship; and while she was undoing the parcels and turning a whole boxful over to select a thin, elastic kid, she chattered on.

"Well, is there no news stirring? Have you seen Slade lately? No! I am surprised at a bright, intelligent woman living shut up like a mummy in this old house, never hearing anything or seeing any one. By the way, that reminds me. I had a letter from Colonel Upton this morning: do you know he was quite struck with you. I can't tell you all the pretty things he said: and envied Sir Hugh Galbraith having been your inmate, and declared, with his usual impudence, that had he been in Galbraith's place he would have seen a good deal more of you."

"I do not think he would," said Mrs. Temple, demurely.

"So I told him. But in his letter this morning he says he had just seen Galbraith, who has been called up to town in consequence of some move of the enemy, that is, Travers's widow. She is making a stir about the will. I suppose it will end in smoke; but it is curious that the day I took the trouble of going up to see Sir Hugh Galbraith, when he received me so coolly, I suggested to him that he had not heard the last of her yet. Of course he

pooh-pooh'd my suggestion; but it was curious, wasn't it?"

"I think this pair will suit you, Lady Styles," said Mrs. Temple, anxious to draw her away from this agitating topic.

"Well, they look very nice! May I try them on?"

"It is against shop-rules," returned Mrs. Temple, smiling. "But you may."

This little concession charmed her ladyship, who was further gratified by finding they fitted admirably, and, after a little more talk, she rose to depart.

"And how is your agreeable friend, the traveller?"

"Who?" asked Kate, considerably puzzled.

"Oh, you know who I mean! The young man I had tea with. Ha, ha, ha!"

"Yes, yes, I remember. He is quite well, thank you!"

"Do you know I met a man in town last spring so wonderfully like him. I was quite startled for a moment! It was at Lady Lorimer's, one of Sir Hugh Galbraith's sisters. She is a blue and a politician, and has artists and editors, and a perfect *olla podrida* at her house. Just as I went into the refreshment-room I saw a gentleman handing a cup of tea to a very pretty woman, and he was so like your young man that I nearly cried out, 'Shrimps!'"

"Very extraordinary," returned Kate, laughing, "but he is Fanny's young man, not mine."

"Oh, indeed!" cried Lady Styles, with a twinkle of delight in her good-humoured black, beady eyes. "I always guessed he was after one or other of you. And so he is her young man," reseating herself. "Now tell me all about it."

Kate, bitterly repenting her unguarded admission, had hard work to ward off her ladyship's very leading questions, and after a desperate encounter of wits, had at last the satisfaction of seeing her tormentor depart.

In the mean time Mr. Wall and Tom were working hard in London. The revelations of Trape rendered criminal proceedings against Poole unnecessary, although he was called upon to explain how his name came to be appended to a will executed when it was incontrovertibly proved that he was sixty or seventy miles away. He was greatly astonished at the circumstances revealed to him, but adhered steadily to his statement, that late in February or early in March, previous to Mr. Travers's death, he had been called

in to the private office to witness, together with Gregory, what he understood to be Mr. Travers's will written out by the latter.

He acknowledged that, about a week or ten days after, he had had "sick-leave," which he had employed in attending the Reephams Steeplechase in company with Trapes; but he felt quite sure the signature shown him was his own writing. After meditating on it for a moment or two, he suddenly struck his hand on the table and exclaimed, "I remember now! — between three and four months after Mr. Travers's death, I was very hard-up, and one day Ford noticed I was looking uncommon bad. As he spoke in an unusually kind, friendly way, I took heart, and asked him for a small loan. He said he could not oblige me then, but that if I would come over to his place and take a bit of dinner he would. So I went. We had a very good feed. Then he lent me two ten, and talked to me like a father, till he brought the tears into my eyes. Then he said he was making a little settlement on a sister of his, and asked me to be good enough to witness his signature. Of course I agreed, and he went over to another table and wrote something, and then he brought a parchment, all doubled up, and says he, 'Put your name there.' 'All right,' says I, 'only I did not really see you write yours.' 'Never mind,' said he, with a pleasant laugh, 'I am sure you heard it, for I never had such a scratchy pen.' I was ashamed to say any more, so I just wrote my name, though I did not exactly see where he had put his. I wonder if he really had any hand in this! But he was done out of money by it himself, wasn't he?"

Poole had been kept carefully in the dark as to the suspicions or rather certainties concerning Ford, and this fresh instance of the morbid cunning displayed by the late manager struck Mr. Wall and Tom, who were both present at the examination of the signatures by Poole, as confirmatory of the deep-laid and carefully worked-out scheme, by which he had endeavoured to draw Kate into his power, and singularly illustrative of the keen foresight on all sides save the one where strong passion and unchecked desire had blinded his judgment and blunted his moral sense.

His whole plot rested its chance of success on the strength of Kate's dislike to Sir Hugh Galbraith overcoming her sense of right. Had he been able to view these forces with sight undistorted by exagger-

ated vanity and enormous selfishness, he would not have embarked in so disastrous a crime. Once launched in it self-preservation compelled him to persevere.

"What an awful life that fellow must have led for more than two years!" exclaimed Tom to Mr. Wall, who was making a note of Poole's observations. "I imagine he has had his share of punishment."

"It is very much to be regretted he has escaped the hands of justice," returned Mr. Wall, sternly, "and I trust he may be caught yet. I have seldom heard of a greater villain. Just look at the confusion he has created! First, poor Mrs. Travers suffers, and then Sir Hugh Galbraith! Finally, Mr. Travers's intentions are frustrated, for there can be no question that at the end of February, 18—, he executed a will, which will this absconding forger has destroyed. So we are compelled to fall back upon the first will which Mrs. Travers originally proved. I must say that, although I am heartily glad Mrs. Travers is righted, I cannot help feeling for Sir Hugh Galbraith. He has laid out a good deal of money, too, in the purchase of property, I am told. Mrs. Travers can force him to repay all that, you know."

"Mrs. Travers will do nothing harsh or unjust," cried Tom: "but I agree with you it is much to be regretted the second will is lost. It is impossible even to guess at the true intentions of the testator. What course do you propose to take now?"

This was fully discussed, and with the advice of counsel it was decided to lay a statement of the whole matter, with Trapes's confession, duly embodied in an affidavit, and the circumstances detailed by Poole and Captain Gregory before Sir Hugh Galbraith's solicitor, who quickly summoned his client from the congenial retirement of the family den. Here Galbraith had lived not unhappily since his last interview and rejection by Mrs. Temple. Something he could not define in her voice — her look — her soft hesitating manner, gave him hope. There might be some difficulties connected with her past, which she could not at once remove, but nothing that he would shrink from associating with the name of wife. He had her word for that, and it was enough. In another month or six weeks he would visit Pierstofte again, or write and ask leave to do so. All hesitation and doubt had long since been exorcised by "the sweetness and light" of as honest a love as ever warmed man's heart.

Near Kate, life was a fresher, fairer thing than he ever thought it could be. To be understood — to be loved — to have the brighter, richer tints of his soul, which had so long been dulled by the mists and miasmas of every-day commonplace association with men who aspired not, nor knew, nor sought knowledge,—to feel them glowing forth once more, retouched by the penetrating nobility of a nature in many things weaker, but also in many loftier, than his own, all this was a vision of paradise. What a terrible awakening awaited him when he reached London! His dreams were even more substantial than the reality he had tasted.

At first he was very little moved; but as one overwhelming proof after another was laid before him, he could no longer refuse acquiescence in his lawyer's conviction, that the will which had constituted him his cousin's heir, was a clever forgery.

Having admitted this, he demanded a day's reflection. It was spent in a brave, silent facing of his position on every side, and a careful, deliberate decision on his own future plans.

When Galbraith reappeared at Mr. Payne's office, he looked considerably older and sterner, but it was with perfect composure and apparent *sang froid* that he gave them directions to communicate to Mrs. Travers's solicitor his complete conviction of the justice of her claims, and the means by which he proposed to refund the money he had withdrawn from her estate.

While these events were occurring in London, Kate, finding herself too much overwrought by the strain of constant anxiety and correspondence with Tom and Mr. Wall, to give due attention to her business,—Fanny, too, being quite distracted from her usual routine,—it suggested itself to her mind one morning, while lying wakefully watching for the dawn, that she would ask Mr. Turner for the "loan" of one of his young ladies to attend to the shop. It was more than she could bear at such a time to be hunting for subtle shades of Berlin wool, when her heart was beating with a variety of emotions, hopes, and fears, inextricably mixed together, so that every hope was largely streaked with fear, and every fear with hope.

Fanny, who was in a most restless, nervous mood, highly approving this project, Mrs. Temple started immediately after

their early dinner to call on the proprietor of the chief shop, glad to be out in the air and doing anything.

She was most politely received by Turner, senior, who heard her proposition favourably and affably. In fact, in the dead season, he was not sorry to get rid of an extra shopwoman.

He rubbed his hands over each other, in the "Do-you-require-any-other-article, madam" style, and said blandly that he was always "happy to oblige a neighbour;" that there was Miss Newman or Miss Finch, both very clever, industrious young ladies, with a good idea of business, and she could arrange with either herself.

Mrs. Temple thanked him, and was about to request an interview with one or other, when, with a portentous hem! Mr. Turner proceeded to inquire if she had any idea of giving up business, or if it was only temporary pressure that made her seek extra assistance. Mrs. Temple answered candidly that circumstances would probably render business no longer necessary to her, and that the Berlin Bazaar would soon be in the market.

"Then, ma'am," said Turner, solemnly, "as a neighbour that has always been on the best of terms, may I be so bold as to ask for the first refusal?"

"Certainly, Mr. Turner," she replied, smiling; "you are at liberty to make me an offer whenever you like."

He, still solemnly, replied he would take a few days to consider, and then proceeded to summon Miss Finch, with whom Kate soon agreed, arranging, to her great satisfaction, that the young lady was to sleep at her old quarters, but to come to breakfast at the Berlin Bazaar each morning.

"I think, Fan, I shall get rid of the business without the trouble and delay of advertising," said Kate, after narrating her interview with Mr. Turner; "and this poor girl seems very good-humoured and inoffensive—you must go in and assist her sometimes."

"Of course I will, dear. But, oh! I do feel in such an extraordinary state! Every ring of the bell makes me expect Sir Hugh, or news that Ford's body has been found! or that Sir Hugh has shot Tom, or Trapes has committed suicide! It will be such a relief when everything is really settled, and we have left Pierstoffe."

"It will," said Mrs. Temple, slowly, while she took off her bonnet; "but, Fanny, I shall always have a regard for Pierstoffe. It was here I found I could 'learn

and labour' to get my own living, and altogether I am not sure I shall quit Piers-toffe with dry eyes."

"Ah," said Fanny, with a supremely knowing look, "I can understand your having more tender reminiscences of Piers-toffe than I have, but I will say no more. Goodness gracious!" interrupting herself. "What a violent ring! Mills!—don't you hear, Mills?" and Fanny started up with her hand on her heart.

"Law, Miss Fanny, it's only the post; you need not be in such a taking. There! two for the mistress, and one for you."

"One is a circular," said Kate, taking hers. "But who is this from?"

"Just open it and see," cried Fanny, who had pounced upon her own letter, which bore Tom's well-known superscription. "There is nothing particular in it," she continued, glancing at its contents. "No further news from Messrs. Payne. Sir Hugh is in town—he supposes in consultation with them, and Mr. Wall will let you know anything fresh. Now, who is your correspondent?"

"Colonel Upton!" cried Kate, turning to the signature at the end of her letter.

"How extraordinary! What does he say?"

"Dear Madam," read Kate, "'since I had the pleasure of seeing you, some circumstances connected with my relative, the late John Aylmer, have come to my knowledge, which make me especially anxious for any information that you can give me respecting the prayer-book which so stirred my curiosity. I trust I am not indiscreet in troubling you. Should you be inclined to gratify me, I shall be entirely guided by your wishes in making your solution of the mystery public or not—'

"I wonder what he can have heard," said Kate, thoughtfully. "At any rate, Fan, there is no longer any need for concealment. I shall just tell him the fact that his relative, John Aylmer, was my father. I wonder if Lady Styles will still continue to patronize the Bazaar when the news penetrates to her ears? Perhaps she will be disgusted!"

"Not she," cried Fanny. "She will be far too much delighted with such a nine-days' wonder. Tell me, Kate, did you know all along that she was your great-aunt?"

"No, Fanny; not until Colonel Upton's visit."

"And how could you hold your tongue about it?"

The next day but one brought a long

letter from Mr. Wall, announcing that Sir Hugh Galbraith had resolved not to make any attempt to uphold the will which had been proved in so extraordinary a manner to be false. His solicitors, on his part, expressed extreme regret that he should, under an erroneous impression regarding his rights, have alienated so large a sum from Mrs. Travers's property. To refund this was quite out of Sir Hugh Galbraith's power. All he could propose was to give her a mortgage, being a first charge upon property still remaining to him, and pay five per cent. interest. He also proposed to create a sort of sinking fund by quarterly payments into the hands of trustees in order to liquidate the debt.

Various other details of business were dealt with, the letter concluding thus: "No traces of the missing Ford have as yet been discovered, nor do I think will be. Being amply supplied with funds of the least traceable description he is probably in the New World by this. I shall be glad to know what your plans are. If I might make a suggestion, I should say that your presence in town would be desirable."

"Are you in want of cash? If so, pray let me know how much you require, and I will forward a check by return."

"I am yours, etc. etc."

"Ah!" said Kate with a sigh and a smile. "Have the old times come back; the quiet, stagnant old times, when I never had even the excitement of a want? But no, the game is not played out yet!"

She immediately replied to the lawyer's letter, entreating him to make Sir Hugh Galbraith understand that she particularly wished him to consider the ten thousand he had appropriated his share of the property, for she felt convinced that had the will for which the forged one was substituted been discovered, a larger portion would have been his. She pressed Mr. Wall to lose no time in making this proposition, and to let her know the result. She declined his offer of funds with thanks, assuring him that her *shop* had answered extremely well. Finally, she promised to come up to town as soon as she could arrange matters at Pierstoeffe.

Now that she was free, she felt an extraordinary reluctance to move—why, she scarcely acknowledged to herself. But the real magnet which attracted her to her humble home was a vague but instinctive feeling that Galbraith would come to seek her there—that in the wilderness of London they might miss each other, and that now nothing was to be

risked, for the happiness of both was balancing on a mere thread of possibility.

"Yet I must go soon—I cannot stay on; and Fanny is visibly vibrating to the points of her toes in her eagerness to take flight!"

CHAPTER XLIII.

THE day after Kate had despatched her reply to Mr. Wall's letter, she was somewhat surprised by receiving an offer from the prosperous Turner for "the good-will, stock-in-trade, furniture, and fixtures" of the modest little establishment, she having only informed him of her intention to part with it a few days before. The sum he proposed was sufficient to reimburse her for any outlay she had made, and leave a small—a very small margin of profit.

It was enough, however, to satisfy the proprietress, who, sincerely glad to have the whole concern thus taken off her hands at once, only waited till the next morning to write, accepting Mr. Turner's offer, lest a more immediate reply should seem too hasty.

"Really," exclaimed Fanny, "nothing could happen more fortunately. We shall only have to pack up our clothes, and leave everything as it stands. When shall you go?—because if you will make up your mind, I had better write to Tom to take lodgings for us. Oh," with an ecstatic jump, and clapping her hands together, "how delightful it will be in London once more!—to go to the theatres!—and have Tom coming in to late dinner."

"I imagine you will soon have the privilege of choosing Tom's dinner for him; and I only hope you may be wisely directed in the choice, for I am convinced a great deal depends on how you feed a man," said Kate, oracularly. "And now run away, like a dear. I must look at my inventories, for of course Mr. Turner's offer is subject to a proviso that the furniture is in fairly good order; and I want to write to Tom besides."

"I am sure you could write in your sleep; the pen is never out of your hand. You are looking quite ill, more as if you had lost a fortune than gained one! Was there any bad news in Tom's letter this morning? I think you have seemed miserable since you read it."

"Yes. there was something in it that distressed me; but I cannot say anything more now, dear. I shall try and think what is best to be done; and do you go and help Miss Finch in the shop. It is a

fine afternoon, and the people will be coming out and into the Berlin Bazaar, I hope."

When Fanny left her, Kate sat quite still in a low chair near the window, gazing out upon the sea without being aware of what she saw.

For greater quiet and seclusion she had settled herself and her writing-materials in the upper sitting-room, which had been Galbraith's. The table had been placed nearer the window that she might have the light as long as a November day would allow, but the sofa was still where it had been the day she had first spoken to him. She could still in fancy see him extended on it; still see the look of profound astonishment in his eyes, which, in spite of their light color, were so stern and sombre, when he turned at the sound of her voice. Was that day to prove fortunate or unfortunate to them both? Hugh Galbraith was specially in her thoughts, because of the concluding paragraph of Tom's letter.

"Johnston, formerly our correspondent in India, has just come in; he says he met Galbraith yesterday, who informed him he had nearly arranged an exchange into the —th (a regiment which sailed for India last autumn) as his old corps the —th Dragoons were on their way back; and he did not wish to remain in England. I do not know how far this may interest you, but I think it right you should be told."

She had not said anything of this to Fanny; but the words had stamped themselves on her brain. Wherever she turned, the words, "Hugh Galbraith is going away out of my reach. I shall never see him again," seemed to blaze before her. How could she prevent it? How could she draw him to her? What right had she to address the man she had twice rejected, and yet she could not bring herself to resign? Perhaps all his trouble—the crushing reverse of his fortune—had driven her from his mind! to so many men, women are but the playthings of their hours of ease; and if she made any attempt to recall herself to him, might he not consider her importunate? Still she felt she ought—she must—make some effort to communicate with him. She might write and ask if he still wished to know the story of her previous life? Or she might send a formal request for a personal interview, as Mrs. Travers. How she wished some one would tell him her story for her.

"Thinking will do no good," she said to

herself, rising and moving towards the fire, which burned bright, thanks to Fanny's parting attentions, and she knelt before it to warm her chill hands.

"I shall just write to Tom, and enclose a little note to Sir Hugh, asking if he is still curious to learn my history. Tom will find out where he is. Yes" (standing up and gazing in the glass), "I do look ill."

A pale, sad, sweet face was reflected, only the lips richly red, with a slight shade as of fatigue beneath the large yearning eyes; the slender pliant figure in its winter garb of thick, dark woollen stuff, looked a trifle less round than when she first stood before Galbraith. "However," she thought, "the anxiety and uncertainty cannot last. I will take courage and write."

She went quickly to the table, and set forth her writing-materials, then, seating herself, traced quickly the words, "Dear Tom." There she stopped, and the succeeding sentence was never written, for Mills came in, with an unusually benign expression on her face. In her hand she held a card; and as she gave it to her mistress, she said, "He wants to know if you will see him?"

Kate turned faint and dizzy as she saw the card bore the name of Sir Hugh Galbraith.

"Yes, yes, I will see him!" She went instinctively to stand by the fireplace, as furthest from the light, and strove to be composed, or to seem composed, though she trembled all over.

It seemed at once a long stretch of time, and yet but a second, before the door opened to admit Galbraith. He advanced and took the hand she held out, both remaining face to face and silent for a moment. Then she saw how gaunt and haggard and worn he looked; what deep gloom was in his eyes; what hard lines about his mouth.

"I hope you are not displeased at my coming here, Mrs. Temple," he said; and she fancied a touch of melancholy softened the harshness of his voice. "But you must forgive me; I could not leave England without seeing you."

"Leave England!" she echoed, sitting down on the sofa because she felt unable to stand.

"Yes," returned Galbraith, walking slowly to the window, and then back again to the fire, where he leaned against the mantelpiece opposite, looking intently at her, while she, in the great, the terrible strain of the moment, was unconscious

how her own eyes were fully uplifted to his.

"Are you all right?" he continued, tenderly. "You look pale, disturbed, as if something had gone wrong."

"Oh, yes, I am well enough. But tell me why—why are you leaving England?"

"It is rather a long story," resumed Galbraith; "but considering how we parted last, and the sort of promise you made me, I thought it due to you to explain how matters are; besides" (a short quick sigh) "I wanted to look upon your face once more" (another pause, which Kate felt quite unable to break, and he moved restlessly away to the window and back). "Since I saw you last," he resumed, speaking quicker than usual, "I am sorry to say I have come to grief. You remember my telling you how I inherited a fortune from a relation who cut out his widow?"

"I do," in a very low voice.

"Well, the widow has come to the front, and proved the will to be a forgery."

"Has she really proved it?"

"Yes, there cannot be a doubt in any sane mind on the subject. There is nothing for it but to give up the fortune I had a short spell of. So I am going back to my profession as my only outlook now. There would be nothing in that alone I couldn't stand very well; but you see I took ten thousand pounds of this woman's money and used it; and I could as soon pay the national debt! It is this that hangs like a cursed millstone round my neck; and I shall be poorer than ever with a lifelong effort to pay it off."

"Surely she will not exact it," murmured Kate.

"I only know I am determined to pay," he returned. "But I did not come here to drivel about my troubles and distress you. I only want to show you my imperative reason for going on foreign service—to explain to you, that having no longer home or fortune or position to offer you, I must not press for the explanation you once promised me." He leaned against the mantel-shelf, and covered his eyes with his hand for a moment. "What was once a bitter grief is something of a consolation now, for I should not like you to feel what I do; but I shall battle through, I suppose, Mrs. Temple," seeing her pressing her hankerchief to her eyes. "A new life and hard work will help to wear out both myself and my trouble. You will give me your hand"—taking it—"and bid me God-speed, will you not?"

He sat down beside her as he spoke, trying to look into her face, which was half averted.

She did not reply. Her heart was beating to suffocation; she was trembling in every limb.

"Speak to me," repeated Galbraith, making a movement to relinquish her hand; but to his infinite surprise her soft white fingers closed over his; it was drawn close to her; and, before he could find any word to express the mingling of pain and pleasure and wild emotion her movement excited, with a gesture full of grace and shy tenderness she laid her cheek upon it.

"God of heaven!" exclaimed Galbraith, pressing close to her, "is it possible that my dim instinct did not deceive me?—that you care for me—love me?"

"Before you ask me any question, Hugh," said Kate, finding voice and courage, letting his hand go, and starting to her feet—"before you ask a single question, hear my story, then—"

"Ay, I will listen to what you like; but first, one moment of paradise before I go out into the dark," cried Galbraith, rising also.

He caught her hands in his, drawing her to him gently, yet with a force she could not resist. He raised them to his neck, and clasping his arms around her, laid his lips on hers as if he were athirst for life and had found its wellspring.

"Now tell me everything," he said, his voice husky with passionate delight,—"here—in my arms. I will not—cannot let you go!"

"You must—you will," said Kate, half frightened at this outbreak. "Listen, then. My name is not Temple! I am Catherine Travers. I am your cousin's widow. I am the woman you despised so much, and you—you are my dearest foe!" The last words sounded like a caress.

"What!" said Galbraith, in great astonishment, and holding her from him to gather her meaning in her face as well as from her words. "You Travers's widow? How did you come here? Why did you not tell me at once? And—but I see it all. And Mr. Tom—your man of business—is that newspaper fellow, Reed?"

"He is. There, you must let me go, Sir Hugh. That is my story." She drew herself away from him and stood near the table with downcast eyes, and an air half proud yet shy, one hand upon her heart which throbbed almost visibly.

"Perhaps I ought to have told you at once, but we seemed to drift into a sort of acquaintance which made explanation so awkward. And then I never thought we should meet any more; and I enjoyed making you feel I was a gentlewoman. But when I found that you cared so much for me, I was afraid you would go back to your feelings of contempt again if you knew who I really was. And I was so anxious to prove that my poor husband loved and trusted me to the end, that I was resolved nothing should turn me from my purpose of proving that dreadful will a forgery. And now, you will *not* go away?—you will forgive my half-involuntary imposition? Ah, Hugh! it went to my heart to hurt you—to rob you! You will take back your own?"

"It is the most extraordinary story I have ever heard," said Galbraith, still bewildered; "yet now that I know it, I seem to have been a blockhead not to know who you were. Forgive you! I do not see that I have much to forgive, though I have had some hours of torture lately. But tell me, do you love me—really, earnestly? Are you willing to give me your life?"

And Kate, with grave eyes, but a tender smile on her trembling lips, said, "I am, Hugh."

The night had closed in, and still the lovers sat in earnest talk by the firelight. Their explanations were full, outspoken, unchecked by a shadow of reserve. There are moments of rapture—diapasons of delight—which from their nature cannot last, but leave a blessing behind them: this was one.

"And I suppose, then, you agree with me, that there is now no necessity for your going on foreign service," said Kate, with an arch smile, when they had fully discussed all points.

"Well, no. I suppose we can manage a fair division of the property. Though I warn you, you might find a far more brilliant marriage than with a poor baronet—your debtor too, by Jove!"

"But if I happen to fancy 'a penniless lad wi' a lang pedigree,'" said Kate, abandoning her hand to his caresses.

"How did that fellow Trapes manage to warn Ford?"

"Oh, he did not warn Ford."

"Then who did?"

"I myself. I do not know what you will think of it, Hugh, but the night that Trapes made a sort of half confession

here, I was so convinced Mr. Ford was implicated in the plot, that I wrote him a little line, saying that Trapes was in communication with me respecting the will, and that no decided step could be taken for a week, adding that my writing to him was a profound secret; then I suppose he ran away."

"And so you let the villain off! Well, I think you might have asked Reed's advice. It is too bad he should escape."

"Still, I do not think having to punish him would have added to my happiness — our happiness. I am glad he is out of the way; and, I imagine, so are you."

"You are a sage as well as a witch! By heaven, I can scarcely yet believe you are my *bête noir*, Travers's widow — the embodiment of all I most detested. And this is the reason why you looked at me so murderously the first time I saw you, in this blessed room?"

"Yes, I was very angry against you; which you cannot wonder at. Consider that, not ten months before, I had heard you tell Colonel Upton Mr. Travers might have been satisfied to take me for a companion on cheaper terms. Do you remember?"

"How do you know this? Where did I say it?"

"In Hampton Court Palace Gardens. You were talking to Colonel Upton under a large yew-tree. I was at the other side, and then and there devoted you to the powers that punish."

"Yes; but how in heaven's name was I to imagine you the sort of woman you are — a *rara avis* in any station?"

"But remember, Hugh, I am no aristocrat. My father was, poor fellow, what is called an officer and a gentleman; my dear — my dearest mother, was the daughter of a shopkeeper."

"I don't care a rap, Kate, who you are, so long as —"

"I beg a thousand pardons," said Fanny, pushing the door open slowly and prudently, "but it is six o'clock. Miss Finch is gone, and if Sir Hugh and yourself have not quite cut each other's throats, why, tea is ready."

"Fanny! you dear little soul," cried Galbraith, starting up, joyously; "I have such wonderful news to tell that you must give me a kiss!"

"Wonderful news — no news to me, Sir Hugh. I know what it is; but there, I will give you a kiss of peace and congratulation. You and Kate have been made more than friends! I always knew you would."

A few lines from Tom to Fanny, received that evening, announced his intention of running down the next day to talk matters over and make certain arrangements which, in his opinion, had been delayed too long.

"Will you not stay and see our good friend and prime minister?" said Kate to Galbraith, "I want you to know and value him."

"I had no intention of returning to town till Monday," replied Galbraith. "A letter to the army agent will do as well as a visit, and I think the redoubted Tom will back me up as to the arrangements I want to make."

So it happened that the next day a very happy *parti carré* sat down to high tea in Mrs. Travers's (the name of Temple was now discarded) pretty drawing-room; four happier hearts could not be found; "quips and cranks and wreathed smiles" flew from lip to lip, mellowed by a real loving-kindness for each other. Galbraith confessed in his heart that, although a newspaper fellow, and a bit of a radical, Tom Reed was a gentleman and an acquisition; while Tom's delight at the solution of all difficulties, and the righting of all injustice, by the prospective union of Kate and her "foe," was sincere and heartfelt.

Kate had begun to dispense that crucial test of a tea-maker, the second cup, when a long, loud, irregular rapping at the front door caused her to pause in her operations.

"Who can it be?" cried Mrs. Travers.

"Oh, I do not care," said Fanny. "We are no longer two 'lone lorn' females! With Tom and Sir Hugh here, I am as bold as a lion."

They were silent for a moment, and then Mills opened the door. "If you please, mum, here's my Lady Styles wants to speak to you, right or wrong."

"Oh, have her in!" cried Galbraith.

"The sooner everything is known the better; and she is a first-rate circulating medium."

But her ladyship waited no permission. Galbraith's words were hardly uttered before she was upon them.

"My dear Mrs. Temple! you really must excuse my coming in; but I *must* see you about an extraordinary" — stopping short, as she crossed the threshold and recognized the group before her. "The young traveller, I protest! and Sir Hugh Galbraith — I really am surprised. Perhaps I am in the way; but, my dear creature, I have such an extraordinary letter from Upton! I only found it when I came in from calling at the vicarage to-

day; and late as it was, I ordered the carriage and came straight away to speak to you." To the general company: "Pray don't let me keep you standing. I dare say you know what I mean, my dear Mrs. Temple; would you rather come and speak to me in another room, or the shop?"

"No, Lady Styles," replied Kate, with a smile and a blush; "we are all true friends here; we have no secrets."

"Very nice indeed!" cried her ladyship, with a stare of undisguised astonishment at Galbraith. "Well, then, Upton tells me you are the daughter of my nephew, John Aylmer, and—and—that pretty girl he ran away with—and married—I believe?"

"I am," said Kate, quietly; "and I possess the marriage-certificate of my parents."

"Well, I protest, it's the most extraordinary, romantic, unheard-of affair I ever knew! My dear, I always thought your face was familiar to me; now I recognize the likeness to my poor brother, your grandfather! Berlin Bazaar, or no Berlin Bazaar, you are a nice creature, and you shall come and stay with me." And Lady Styles took Kate's hand and bestowed a kindly, audible kiss upon her cheek.

"Now," she resumed, sitting down at the table, "come, do tell me all about everything! I can't make out what brings Sir Hugh Galbraith here. I am really sorry to hear such bad tidings of you," she went on, addressing him. "But I told you I thought that widow would be a thorn in your side yet; now, didn't I?"

"You certainly did," said Galbraith, laughing a genial heart-laugh very unusual to him; "but instead of rushing into legal warfare, I have persuaded her to become bone of my bone."

"Excellent! very judicious! a common-sense line of action. But pray, Sir Hugh, is she aware of your visits here? I am not straitlaced, but——"

"She highly approves," interrupted Galbraith.

"Oh, Tom, Tom!" cried Mrs. Travers, laughing. "You are accustomed to manage the *dénouements* of thrilling tales; will you tell Lady Styles everything?"

Whereupon Tom detailed a simple narrative of the principal events set forth in the foregoing pages; during which Lady Styles was a study. She followed his

words with her eyes and a motion of her lips, as though she were absolutely drinking the delicious revelations. Her fat jewelled hands (for she soon drew off her gloves, in the excitement of the moment) twitched and clutched at her dress as they lay on what were unmistakably her ladyship's knees; and when he reached the climax of Mrs. Travers's approaching marriage with Sir Hugh Galbraith, her joy, her exultation knew no bounds.

"My dear creature, I never in all my experience knew anything half so wonderful, and delightful, and romantic, and satisfactory; only I should like to have hung Ford! And you, my dear Mr. Tom, are going to be married to this charming young lady! I tell you what, you shall all come to me, and we will have what Willie Upton would call 'the double event' at Weston. Why, it will supply the country with talk for the next ten years to come! I am sure, Sir Hugh, I already look on you as my nephew; and I shall always thank heaven that I happened to be on the spot when you were carried in here insensible. Only for me, there is no knowing where that obstinate fellow Slade might have taken you, and then nothing would have come about," said her ladyship, throwing back her bonnet-strings, and stirring the cup of tea Fanny placed before her, joyously, while her broad, good-humoured face beamed upon them.

"But, my dear Lady Styles——"

"Dear aunt, if you please," interrupted her ladyship.

"My dear aunt, then," repeated Kate, "I was under the impression that Doctor Slade ordered Hugh to be brought here from the hunting-field, and——"

"Not at all, not at all, my dear! You," turning to Tom, "must remember my standing up from that nice tea and shrimps, and my words to Slade were, 'Don't exhaust him by going further, bring him in here and keep him quiet.'"

"I cannot recall the words," said Tom, demurely.

"Never mind, I can," said her ladyship, with an air of deep conviction. "And but for me, my niece here, Mrs. Travers, would never have had an opportunity——"

She paused, and Tom finished the sentence——

"Of heaping coals of fire on the head of 'her dearest foe.'"

From The Contemporary Review.
ON NATIONAL EDUCATION AS A NATIONAL DUTY.*

You have done me the great honour of asking me to come to Manchester, in order to distribute the prizes and certificates awarded by the universities of Cambridge and Oxford, at the last local examinations, to the candidates from this town and neighbourhood.

I hesitated some time before accepting your flattering invitation, because I could not help feeling that, while those who had performed this office in former years had, by their very presence, reflected honour and lustre on these meetings, and had even imparted to them a political importance, I could bring you no such help.

If I allowed myself to be persuaded at last, by the repeated requests of your committee, it was because I believe that, however much I may be excelled by my predecessors in everything else, I need not yield to them in the warm interest which I have felt all my life in the cause of education, in the widest sense of the word; and I may add, because I feel, and have felt from the very beginning, most deeply interested in that system of local examinations which has now been carried on for many years with ever-increasing success, and the results of which we see before us to-day.

Perhaps few here present recollect the first beginnings of these local examinations, carried on under the auspices of the two universities, Oxford and Cambridge. I recollect them well; and when I see how the tree has grown, and is growing, and spreading its branches wider and wider every year, I feel no slight satisfaction at the thought that I was present when it was planted — nay, that I rendered some assistance, however small, in planting it.

And, gentlemen, I can assure you, it was no easy matter to plant this tree. The first generous impulse came from Oxford, but from Oxford came also the first repulse. I go back in my thoughts to the year 1857, when Mr. Acland, now Sir Thomas Acland, first mentioned to me this idea, that much might be done to improve the middle-class schools all over England, if the universities would undertake to examine them, and to give some kind of academic recognition to the best candidates and to the best schools.

There were some men at Oxford who

at once perceived the excellence of such a scheme; but there were others, too, who treated it with open scorn and derision. We were told by some that no one would come to be examined of his own free will; by others, that there would be such a rush of candidates that the university could not supply a sufficient staff of examiners; while as to giving the academic title of associate in arts to candidates who might not know Greek and Latin, that was considered simply high treason.

While these discussions were going on, Mr. Acland and some of his friends resolved to try the experiment, and in June, 1857, they held the first examination of middle-class schools in Devonshire. There is nothing like trying an experiment, and Mr. Acland's experiment proved at least three things:—

1. That the middle-class schools required to be looked into most carefully.
2. That the middle-class schools were willing to be looked into most carefully.
3. That the examinations presented no insurmountable difficulties to frighten the universities from undertaking this important task.

I was myself one of the examiners at Exeter, and I well remember the enthusiastic meeting that was held there, for it was the first time that I allowed myself to be persuaded to speak, or, rather, to stammer in public.*

Mr. Acland's scheme was soon after accepted by the university; and when I look at the excellent results which it has produced during the last seventeen years all over England, it seems to me that Sir Thomas Acland, the worthy son of a worthy father, has deserved well of his country, and that no honour that the nation could bestow on him would be too high, in recognition of the great and lasting benefit which, by taking the initiative in these local examinations, he has conferred on the nation.

I do not speak at random, and I know I can appeal to all here present, parents, teachers, and pupils too, who have been successfully taught under this system, and are here assembled to-day to receive their prizes and certificates, to support me in saying, that these examinations have been a real blessing to the teachers as well as to the taught.

* An address delivered in the Free-Trade Hall, Manchester, 27th October, 1875, by Professor Max Müller.

* "Some Account of the Origin and Objects of the New Oxford Examinations for the Title of Associate in Arts and Certificates, for the year 1858," by T. D. Acland, Esq. London: J. Ridgway, 1858.

And their capacity of usefulness is by no means exhausted.

At present, schools consider it an honour, if they can pass a certain number of their pupils, and if a few gain prizes and certificates. The time will come, I hope, when schools will not be satisfied unless they can pass nearly all their pupils, and if at least one-half of them do not carry off prizes and certificates. Till schools consider themselves in duty bound to send up, at certain periods, every one of their pupils to be examined, the true scope of these examinations has not been reached; nay, I fear, their object may be defeated, if they encourage schoolmasters to aim at high excellence in a few, rather than at an average excellence in all their pupils.

And not only schools will benefit by these local examinations, but home education also, and more particularly the home education of girls. Allow me to put before you my own experience in this matter. As there was hitherto no good school for girls at Oxford (I am glad to say a High School for girls will be opened there next week), my children had to be taught at home; but I told them, and I told their governess, that I should have them examined every year at these local examinations. That put them on their mettle, it gave a definite direction to their studies, it made them fond of their work, and, in spite of all the drawbacks of home education, the results have been most satisfactory. I sent my two eldest girls to be examined last year, chiefly in order to find out their weak and their strong points; I sent them again this year, as junior candidates; and if you will look at the division list which is now in your hands, you will find both their names in a very creditable position. I shall send them again next year, and year after year, till their education is finished, and I can assure all parents who are obliged to educate their daughters at home, that, however excellent their governess may be, they will find these examinations affording a most useful guidance, a most efficient incentive, and, in the end, a most gratifying reward, both to pupil and teacher.

In 1857, however, I had as yet no such selfish interest in these examinations; and you may wonder, perhaps, what could have induced me then to go from Oxford to Exeter, in order to be present and to help in the first experiment of these local examinations. Well, you know that education has been for many years our national hobby in Germany, the one great luxury in which so poor a country as Germany

is, and always must be, has freely indulged. But I may confess that I was influenced, perhaps, not only by a national bias, but by what is now called family bias, or *atavism*, that mysterious power which preserves certain hereditary peculiarities in certain families, and which, if it is true that we are descended from some lower animals, may even help to explain some strange and perplexing features in human nature. My own *atavus*, or at all events, my great-grandfather, was Basedow (1723-1790), a name which perhaps none of you has heard before, but a name well known in Germany, as the reformer of our national education, as the forerunner of Pestalozzi, as the first who, during the last century, stirred up the conscience of the people of Germany and of their rulers, and taught them at least this one great lesson, that next to the duty of self-preservation there is no higher, no more sacred duty which a nation has to fulfil than — national education.

This sounds to us almost like a truism, but it was not so a hundred years ago. The idea that the nation at large, and each man and woman in particular is responsible for the proper education of every child, is a very modern idea — it is really not much older than railways and telegraphs. Great men like Alfred and Charlemagne had a glimmering of that idea, but the times were too dark, too stern for them. During the whole of the Middle Ages we see little more than cathedral and monastic schools, chiefly intended for the education of the clergy, but opened in certain places to the laity also. Schools for the nation at large, and supported by the nation at large, there were none. Then came the Reformation, the very life-spring of which was the reading of the Bible by the laity. The reformers at once called for schools, but it was like a cry in the wilderness. Much, no doubt, was done by the reformers, many of whom were excellent schoolmasters, many of whom knew but too well how even Christianity could be degraded and well-nigh destroyed in countries where the education of the people had been neglected. Every Protestant clergyman became *ipso facto* a schoolmaster. He had to see that the children of his parish were able at least to read the Bible and to say the catechism. This is the historical explanation why, in Protestant countries, the school has so long remained a mere appendage to the Church.

After a time, however, the clergyman, having plenty of work of his own to do,

secured the assistance of the sacristan, or sexton, who, in addition to his ordinary duties of bell-ringing, organ-playing, waiting at christenings and weddings, and grave-digging, had now to act as school-master also, and teach the children to read, to write, and to count. This was the beginning of our schools and schoolmasters; but in Germany even these small beginnings were soon swept away by the Thirty Years' War.

When, in the eighteenth century, people began to breathe again, and look about, the state of the lower and middle classes in Germany, as far as education was concerned, was deplorable. There were Church schools, town schools, private schools, scattered about here and there, a few good, some indifferent, most of them bad; but as to any efficient machinery that should secure the proper education of every child in the country, it was never even thought of.

It was my *atavus*, it was old Basedow, who, about a hundred years ago, raised the first war-cry for national education in Germany. It would take too much time were I to attempt to give you an account of his life (I had lately to write it for the "*Deutsche Biographie*," published by the Bavarian government). It was a chequered life, as the life of all true reformers is sure to be. Perhaps he attempted too much, and was too much in advance of his time. But whatever his strong, and whatever his weak points, this one great principle he established, and it remained firmly established in the German mind ever since, that national education is a national duty, that national education is a sacred duty, and that to leave national education to chance, Church, or charity, is a national sin. That conviction has remained ingrained in the German mind, even in the days of our lowest political degradation; and it is to that conviction, and to the nation acting up to that conviction, that Germany owes what she is, her very existence among the nations of Europe.

Another principle, which followed, in fact, as a matter of course, as soon as the first principle was granted, was this, that in national schools, in schools supported by the nation at large, you can only teach that on which we all agree; hence, when children belong to different sects, you cannot teach theology. However irresistible the argument was, the opposition which it roused was terrific. Basedow thought, for a time, that he could frame a kind of diluted religion, which

should give no offence to any one of the Christian sects, not even to Jews or Mohammedans. But in that attempt he naturally failed. His was a deeply religious mind, but national education had become with him so absorbing a passion, that he thought that everything else ought to give way to it.

I confess I fully share myself the same conviction. If it were possible to imagine a religion, or a sect, that should try to oppose or retard the education of the people, then I should say that such a religion cannot be a true religion, and the sooner it is swept away the better. I say the same of national education. If there were, if there could be, a system of national education that should exclude religious education, that system cannot be the true system, and the sooner it is swept away the better.

Poor Basedow soon came in conflict with the Church; he was deprived of his professorship in Denmark, though the king, more enlightened than his people, granted him his full salary as a pension for life. In Germany he was excommunicated, not by the pope, but by the Protestant clergy at Hamburg, who excluded him, and every member of his family, from the communion. The mob at Hamburg was roused against him, his books were prohibited, and he found no rest till the duke of Dessau, a man who dared to think and to act at his own peril, invited him to his capital, to help him to introduce into his small duchy a more perfect system of national education.

All these things have become matter of history, and are almost forgotten now, even in Germany. Many of Basedow's theories had to be given up, but the two fundamental principles of national education remained firmly established, and have never been shaken. They have spread all over Germany; they are adopted in Denmark, Sweden, Russia; they have lately found their way into Italy, a country which is making the greatest efforts for national education, knowing that her very existence depends on that.

Two countries only, France and England, still stand aloof. Yet, when we hear a minister of instruction in France (Jules Simon) say, "Yes, there are schools, many schools, but one thing is still wanting, and it is for this that I do not die; we have not yet obtained compulsory and gratuitous instruction;" when in England we see that convictions with regard to national education become too strong for party, that Mr. Forster would rather break

away from his friends than yield his deep and honest convictions, that Mr. Cross is more liberal, more bold than even Mr. Forster, in favour of compulsory national education; when you consider how one of the most distinguished divines of the Church of England, whose death the country is mourning this very day, insisted all his life on the separation of Church and school teaching, as the only solution of the educational problem; nay, when you remember the words spoken not long ago by your own excellent and outspoken bishop, that it was better for the Church to surrender her schools than to allow the existence of one single inefficient school; you may be certain that the time has come when England also will recognize these two fundamental principles, education by the nation and for the nation, and complete separation of school teaching and Church teaching. And, believe me, as soon as these two principles are acknowledged, most of the difficulties that now beset the educational question, whether theological or financial, will vanish.

The clergy will be relieved from its present false and invidious position. They, whether Protestant, or Nonconformist, or Roman Catholic, will be able to teach during certain hours on week-days, and in Sunday schools, that religion which it is their right and duty to teach. The time will be amply sufficient, for the less a child learns of theology, as distinct from religion, the better. There will be no conscience-clause, no conscientious scruples, to disturb the teachers of religion. We shall have real, not half-and-half, religious teaching in every school; and as to the proper remuneration, I hold that if every shilling that is now subscribed for Church schools were given to the clergy, particularly to the poor curates, as the religious instructors of their flock, the money would be well bestowed.

Then, no doubt, the whole charge for national education, a large portion of which is now covered by private charity, will have to be paid by the nation at large, as in the case of the army, the navy, and the civil service.

Whenever I state this, the ready answer I receive is: "Yes, it is very well for a foreigner to say that, but it is an utterly un-English idea; no sensible Englishman would listen to it for one moment."

I always look on that answer as a most hopeful sign; it shows that all other argumentative ammunition has been expended, for no gentleman would fire off that blank

cartridge if he still possessed one single ball-cartridge in his pouch.

I am the very last man to say that the German system of national education should be transplanted to England. I speak only of certain broad principles, which are either right or wrong in themselves, and have nothing whatever to do with national character or historical circumstances. No one could have lived half his life in England and half his life in Germany, without knowing how utterly unpractical it is to try to transfer English institutions to Germany, or German institutions to England. Germany has had to pay heavy penalties for attempting to copy the English form of constitutional government, and national education in England would be a certain failure, were it to be a mere imitation of the German or the French system. You do not want a minister of public instruction who could look at the clock and then tell you that at this moment every child in France is reading, "*Gallia est omnis divisa in partes tres.*" But if you could have a president of the council who could look at the clock and say, "At this moment no child over six or under thirteen is loitering in the streets," would that be so very intolerable?

How much should be left to local boards and authorities in the management of schools, what subjects should be taught, what books should be used, what hours should be kept, what fees should be paid, all these are matters of detail, which would admit of great variety, if only the great principle was once recognized, that the school belongs to the State, and that the State is responsible for its efficiency, as it is responsible for the efficiency of the army, the navy, nay, even of the post-office. It is a misdemeanour to convey a letter otherwise than by the post. It is criminal to sell poison. Would it be carrying the same principle too far, if Parliament insisted that no one should open a private school, unless the government was satisfied of the wholesomeness of the moral and intellectual food sold in these schools to helpless children? Paternal government, I know, has not a good sound to English ears; but if anybody has a right to a paternal government, surely it is "these little ones, who should not perish."

These are not questions of politics, they are questions which concern every man, be he English, French, or German. They are religious questions, in the truest sense of the word.

I hardly wish to touch on smaller points connected with the great question of national education. However large they may appear at present, they would dwindle away, if once national education was looked upon in the light of a national duty. Take, for instance, the financial difficulty.

By making national education an annual charge on the national exchequer, what is it you do? You simply substitute a national and rational taxation for an irrational and haphazard taxation. It is John Bull who pays the taxes; it is John Bull who pays the charities; and the only people who have any intelligible motive for opposing an equitable distribution of the educational taxes are those who do not want to pay their proper share.

Secondly, nothing can be more wasteful than the present system, when every parish, or at all events, every clergyman, wants to have his own little school. By combining three or four schools into one, you would not only save money, but you would be able to bring the teaching power, which is now often miserable, to the highest degree of efficiency.

On this point, if you will allow me, I should like to say a few words more. In order to have a good education, you must have good educators. It is true, we no longer employ the sexton, who, in addition to bell-ringing, organ-playing, and grave-digging, has to teach the children in school. But it is very bad still. The schoolmaster is still in many places the servant of the clergyman; his work is hard, and he never rises to much more than about £150 a year. What can you expect on such conditions? A young schoolmaster might begin with much less than that, if there were a career open to him. In the army a man begins as a lieutenant, but he may end as a general. Is teaching a lower profession than drilling? In every department of the civil service a gentleman begins with little, but he rises, and he has the prospect of a retiring pension in the end. Is the place of a schoolmaster too low for a gentleman? Let me read you what Niebuhr said about this — and remember he said it after he had been Prussian ambassador at Rome: "The office of a schoolmaster, in particular, is one of the most honourable, and, despite of all the evils which now and then disturb its ideal beauty, it is for a truly noble heart the happiest path in life. It was the path which I had once chosen for myself, and how I wish I had been allowed to follow it!" Is teaching so very repulsive — even teaching the ABC?

Do gentlemen shrink from offices which seem at first most repulsive, in the medical profession? Has a schoolmaster fewer opportunities of doing good than a clergyman? If gentlemen can be inspectors of schools, why could they not be teachers of schools? Make education a branch of the civil service; make the schoolmasters, what they really are in the true sense of the word, servants of the queen, and you will find the best talent and the best moral stuff in the country ready at hand for making really efficient schoolmasters.

However, with all the saving that could be effected by combined schools, there would still be, no doubt, a large expenditure at first; only let us call it by its right name; it is not expenditure, it is investment, and the best and most lucrative investment in the world. That is what I often preach to parents who think that the education of their children is too expensive. I do not say that education is not too expensive. It is often scandalously expensive. But I still maintain that it is far better to spend the money on the very best education that can be had than to leave to each child a thousand pounds more. The same should be preached all over the country, till the nation at large — which, after all, consists of so many parents — understands that it will receive far higher interest from capital spent on English education than from capital invested in the English, nay, in the Turkish, funds. As foolish parents have to pay their children's debts, foolish nations have to spend for prisons and workhouses, nay, for lunatic asylums, what they might have spent on national education.

But it is not that only. Every nation at present is trying to improve its material by national education; and in the peaceful, but not the less fierce and determined warfare of commercial competition, in the permanent international struggle for life, depend upon it the worst-drilled, the worst-educated country will go to the wall. A man in these days who cannot read is like a blind man; a man who cannot write, is like a deaf and dumb man. Are those the men whom England wants to rear?

Once show to the people of England what is right, and they will do it. Is England a poorer country than Germany, Denmark, Sweden, Russia, or Italy? If all these countries tax themselves to the uttermost for compulsory and gratuitous education, is England to say, "I cannot afford it?" When slavery was to be abolished, did England count the cost? When, more lately, the army was to be relieved

from the stigma of purchase, did Parliament shrink from paying the bill? Whatever the cost, sooner or later, the schools will have to be redeemed. England, in time of war, can bear an income-tax of eighteenpence, and call it a flea-bite; the duties of peace, of peace granted to this country by a kind Providence, are as sacred as the duties of war; and if Englishmen have once made up their mind that national education is a national duty, they will think as little of repudiating that national duty as of repudiating the national debt.

It may take some years before all this is realized; but the higher your ideal of national education the better. A man without ideals is a poor creature; a nation without national ideals is poorer still.

I hear it often said that England should do for national education what Germany has done; what Italy is doing. No; that is not enough. We have done our best in Germany, but our best is but poor work. Our difficulties are enormous. Who is to pay for schools and schoolmasters, such as they ought to be? The soil of the greater part of Germany is poor, and therefore the country will never be rich. Besides, we may do what we like, we shall always live between two Symplegades—between France on one side, and Russia on the other; and we shall always have to spend our best energies in self-defence. There is the strongest feeling among the statesmen of Germany that the greatest efforts will have to be made for improving our national education: only what we want for it is, what we are not likely to get, a long peace, and a Bismarck and Moltke rolled up into one minister of public instruction. In England you have everything, and there is no reason why your national education should not be as much ahead of that of Germany, as the education of Germany is of that of China. You have money, you have peace, you have public spirit, and you have, what is best of all, practical religion—I mean you still do a thing, however much you may dislike it, because you believe it is the will of God. Well, then, invest your money, utilize your peace, rouse your public spirit, and convince the world that one-half, three-fourths, nine-tenths of real practical religion is—education, national education, compulsory, and, it may be, gratuitous education.

From Blackwood's Magazine.
THE DILEMMA.

CHAPTER XLV.

YORKE's first experience of the place which he had looked to make his home while in England, did not tempt him to a speedy renewal of it. When the London season came to an end, he took advantage of numerous invitations for shooting in the country to remain away from Wiltonbury, and the days were growing short when he paid his next visit, determined, if he could, to make his mother's house more of a home than he had done before. But whether it was that he had scowled so at them on previous occasions, or that matters had so far advanced that their visits could no longer be made with ease in his presence, at any rate on his arrival there was a general abstinence of male visitors from their customary attentions, and his mother was evidently so ill at ease from the cessation of the mild pleasures which made up the business of her life, that her son felt that it would be only kind to shorten his stay; and while casting about for an excuse for going away, Yorke bethought him that he had not attempted as yet to make the acquaintance of the sister of his late friend Braddon. With this lady, who was married to a gentleman named Peevor, he had had some correspondence at the time of her brother's death, which had ended with a warm invitation to pay herself and her husband a visit whenever he should come to England; and it was with rather a lame apology for not having done so before, since they lived only a few miles from London, that he wrote to Mrs. Peevor, proposing to run down from town some afternoon and pay his respects. By return of post came her reply, and also a separate letter from her husband pressing him in such warm terms to spend at least a few days at "The Beeches," that he at once accepted the invitation, and passing through London started for his destination.

It was an afternoon train, filled with business men returning to dinner, who all settled down at once for their naps, leaving him free to speculate on the drollness of the situation, in thus starting off in mere restlessness of mood on a visit to persons not only personally unknown to him, but of whose antecedents and position he was totally ignorant. Braddon had told him that he had not seen his sister since she was a little girl, and knew nothing about her husband beyond the

fact that he was well off, but whether he was a clergyman, or a country squire, or a London business man, Yorke had no idea. And "The Beeches, Hamwell," might designate a "semi-detached villa residence" in a suburban terrace equally with a venerable country-house. The name was no clue to the nature of the place.

The train gradually disgorged its passengers at the different stations, who alighted for the most part bearing little baskets of fish or game, till at last the Hamwell station was called; and Yorke, getting out with some half-dozen other passengers, was received by a servant in smart livery, who took his luggage. A handsome close carriage was waiting outside for himself, also a spring-cart and horse for his portmanteau; his host was therefore evidently well-to-do; and this attention to the stranger indicated a hospitable spirit. It was too dark to make out the scenery; but the road evidently made a considerable ascent; and after the traveller had passed through the gates of an entrance lodge, the white trunks of an extensive avenue of ancient beeches which could be seen on either side of the drive, indicated that the house at the end of it was rightly entitled to its name. Clearly "The Beeches" was not a semi-detached villa. On the carriage pulling up at the door, a flood of light burst on it from the cheerful outer hall which now came into view; this opened on an inner hall, thick-carpeted, and garnished with statuary, armour, and ancient cabinets, and from which the outer air was carefully excluded; and Yorke issuing therefrom into a dimly lighted sitting-room, had some difficulty at first in distinguishing the different members of the little group sitting round the fire, who rose on his entrance in a somewhat confused and hazy way, suggestive of their having been disturbed in an ante-dinner nap. However, on collecting their senses, the inmates showed no want of heartiness of greeting—Mr. Peevor, who was of the party, coming forward to shake him cordially yet somewhat deferentially by the hand, and introducing him in turn to his wife, his eldest daughter Maria, his second daughter Catherine, and his youngest daughter Lucy, who was sitting in the corner at work, the only one of the party employed on any occupation.

A servant now bringing in lights, the visitor was able to obtain a view of the family. Mr. Peevor was a good-looking, well-preserved man, with grey and white whiskers and a fidgety manner, who might be between fifty and sixty. His wife was

a tall, handsome woman, bearing a strong likeness to her late brother, but with a certain languor of manner in marked contrast to his active, vigorous ways. Mrs. Peevor was evidently too young to be the mother of her husband's three grown-up daughters, who, moreover, bore no resemblance to her; and Yorke guessed rightly that they must be the children of a former marriage. Miss Peevor was no longer young, and looked older than she was, wearing an air of ill-health and depression; and Yorke instinctively judged that her part in the drama of a young lady's life was already played out. Miss Catherine was fair and pale with light hair, neither plain nor pretty in face, but with a neat, slight figure; she was evidently short-sighted, and the habit of wearing an eyeglass screwed into one eye did not improve her appearance. Miss Lucy, on the other hand, also slight and neat in figure, was a little brunette, with pretty face, and bright dark eyes indicative of humour; but Yorke had not time to notice this particularly on the present occasion, as she still sat apart from the rest listening to the conversation, of which the burden for the most part was borne by Mr. Peevor, who was full of expressions of gratification at their guest's arrival, and his kindness in coming to see them. He apologized more than once for not having gone to the station himself to meet him, on the score of a slight cold, but he hoped the coachman had been punctual, and Rundall the footman ready awaiting him on the platform. "I ordered him particularly," said Mr. Peevor, "to be there well before the time—a good ten minutes, I said—to make sure, so that you might not be kept waiting a moment; one is so apt to catch cold these chilly evenings waiting on the platform;" and Yorke was assuring him for the second time that Rundall had executed the order faithfully—regardless (he could not help thinking) of the risk incurred by himself of catching that dangerous complaint—when conversation was suspended by the sound of the dinner dressing-bell; whereupon the party rose, and the host conducted him to his bedroom.

"We are treating you quite without ceremony, you see," said Mr. Peevor, by way of apologizing for the accommodation; "the great friend of my wife's poor brother is of course a friend of ourselves; but you military men can put up with simple ways on a pinch, I have no doubt. We have asked no one to meet you to-night, but there will be a few friends to-

morrow and the next day;" but as Yorke looked round the spacious and well-lighted room, which opened into a good-sized dressing-closet, most luxuriously furnished and fitted with every comfort, and with the walls almost covered with pictures, it seemed to him that no apology was needed. In none of his previous visits had he been so sumptuously billeted, for bachelors in big houses seldom get the best rooms.

The dinner which followed was a very elaborate one, handsomely served, and altogether superabundant for the party of six who sat down to it, not without further apologies on the part of the master of the house for its simplicity, on the score that Yorke must be looked upon as an old friend, to be treated without ceremony. Except himself none of them did much justice to it, possibly because they had lunched well at two, and partaken heartily of tea, cake, and muffins, at five o'clock, for such he afterwards discovered to be the custom of the house.

The conversation (kept up for the most part by the host) at first turned mainly upon Yorke himself; and, accustomed as he had been whilst on furlough to be petted and made much of, he could not help feeling quite uncomfortable at the continual references on the part of his host to Victoria Crosses, cavalry charges, gallantry displayed in the mutiny, and the general superiority of Indian officers to the rest of the military world. Not that Mr. Peevor knew much about these things; his knowledge of them, indeed, was evidently of the vaguest and most general kind, and but that his manner seemed guiltless of humour, Yorke might have fancied that he was secretly poking fun at him; and it was with difficulty that the guest succeeded in turning the conversation from India and military exploits to the inmates of the house. So much, however, Yorke gleaned incidentally while the conversation ran in military channels, that Mr. Peevor had an only son in the —th Hussars — "but only a lieutenant," as his father explained apologetically, adding that he had never served out of the kingdom. "Being an only son, I could not of course wish him to run any risks from foreign climates." Fred, it appeared, was expected home in a day or two, when Mr. Peevor observed he would have the honour and privilege of making Colonel Yorke's acquaintance; and the young ladies, who had so far taken no share in the conversation, being somewhat in awe of the stranger, although Miss Lucy's

bright eyes twinkled with fun at Yorke's evident distress under her father's compliments, brightened up as their brother's visit was spoken of. It was such a treat to have Fred at home; he could so seldom get away from his regiment.

They seemed to have a very pretty place here, Yorke presently observed, by way of filling up a pause in the conversation.

Yes, it was a pretty little place, admitted his host, but small, you know; only about two hundred and fifty acres, including gardens and everything.

Was there any game on it? Yorke fancied he had seen something that looked like a cover on the way up.

Yes; there was a fair show of pheasants for the quantity of ground. Mr. Peevor did not shoot himself, but liked to be able to give a day's sport to a friend. The shooting, however, was nearly over for this year; there were merely enough birds left to keep up the stock; but next year he intended to lay down a fresh supply, and he hoped the colonel would do them the honour to come down early in October, when Mr. Peevor would make up a shooting-party to meet him.

So his host did not shoot himself. The next thing was to find out what amusements the young ladies affected. Miss Maria, the eldest, it appeared from the brief replies extracted, did not care about anything in particular, although she liked taking a walk after breakfast if the weather was fine; but on her father observing that they were seldom in the country at this season when the leaves were falling — falling leaves were so very unhealthy — Miss Catherine, taking courage, observed that this was how they always missed the hunting.

"Then you are fond of hunting?" said Yorke, turning to her with more interest in his manner than he had been able as yet to assume.

"It is the only thing worth doing in the winter," replied the young lady with enthusiasm; "but one seldom gets a chance of a good thing; usually one has to put up with the Brighton harriers, which is not very lively work; but we are going to stay here till Christmas this year, and so there will be some real hunting. The Southby-westershire hounds have their first meet in this part of the world to-morrow; it will be so nice."

"And you too are fond of hunting, I suppose?" said Yorke, turning to Miss Lucy, whose pretty little figure, he thought, was just of a kind to show to advantage

in a riding-habit. Miss Lucy, however, it appeared, did not hunt or even ride. She had had riding-lessons several times, she said; but was too nervous to go on with them; whereon her father observed that Lucy drove very well notwithstanding, and that she would drive the colonel in her pony-carriage next morning to the meet with pleasure. Mr. Peevor went on to express his extreme regret at not having a hunter to lend Yorke. He had a serviceable hack in his stable, he said, for the use of his friends when they were good enough to come and see him, although he did not ride himself; but he was afraid it would not do for hunting, although it was a very good sort of horse. The colonel, of course, was a fox-hunter, and no doubt had plenty of it in India; whereon Yorke was fain to confess that he had never been at a cover-side in his life, his sporting experience having so far been limited to pig-sticking; but added, incidentally, that it was part of his plan for the winter to job a horse or two, and join some friends in taking a hunting-box in the shires. The conversation now became quite animated; and on his admitting to the question put by Mr. Peevor—who said what a pity it was he could not have some hunting while staying at “The Beeches”—that his boots and other hunting-appurtenances were with his luggage, Miss Catherine ventured to suggest that very tolerable hunters could always be hired at the neighbouring town of Castleroyal; and Mr. Peevor following up the idea, it was arranged that one of the stable-men should drive over in the tax-cart the first thing in the morning, with instructions for a horse to be sent for him to the meet, whither Miss Lucy would drive him in her pony-carriage, while Mrs. Peevor was to take Catherine in the landau. The matter was indeed arranged almost before Yorke could say anything, and not without misgivings on his part; for although it would be pleasant enough to escort Miss Catherine, he did not much fancy making his first appearance on an untried hack. But Mr. Peevor seemed so delighted at the idea, saying that he would write to the stable-keeper himself to send his very best horse—it was worth Bytheday’s while, he said, to oblige him, for he paid a pretty large bill there every year—that there was no backing out of it. And Mr. Peevor repeated the order to the butler about the despatch of the tax-cart so many times during dinner, as to suggest a doubt whether orders given in this household were very strictly obeyed.

Mrs. Peevor’s two little girls came in to dessert, Minnie and Lottie, whose acquaintance Yorke now made for the first time. Minnie had a chair by her mamma, while Miss Lucy took Lottie on her lap and peeled a pear for her. Then the wine was handed round—claret, port, brown sherry, and two kinds of dry. Mrs. Peevor took a glass of port wine, which her husband took the opportunity of mentioning by the way had been prescribed by the doctor; the other ladies took none, and the gentlemen were soon left to discuss their wine alone.

“What are you taking, colonel?” said Mr. Peevor, moving down to his end of the table; “I am not allowed much wine myself just now—I’ve got a touch of gout flying about me; but I like to see my friends enjoy their glass. Sherry, eh? Ah, don’t drink that wine; it’s a fair wine enough, I admit, but let me help you to some of this; you will find this a really tolerable glass of sherry, I believe:” and Mr. Peevor proceeded to recount at length how, through the kindness of a friend who was always on the look-out to do a good turn in that way, he had been fortunate enough to come into the possession of a parcel of very rare wine which a large number of connoisseurs had also been on the look-out to secure; and indeed Yorke was a sufficiently good judge to perceive that his host did not exaggerate the excellence of the article. The conversation indeed took an altogether objective turn, turning on the various commodities in view from where they were sitting, to each of which a long story was attached, the end always being that the thing in question—a carved screen or a bronze or a piece of china, for the room was crowded with such ornaments—had come into the present owner’s possession at a high price. “I make a point of putting aside a trifle every year,” said Mr. Peevor, apologetically, “for little purchases of this sort; it improves the look of the house, you know, and gives one occupation.” The pictures Colonel Yorke must look at to-morrow, in better light: he made a point of buying four or five pictures a year; it was a man’s duty to encourage art, and then it made the visits to the Royal Academy so interesting if you went there with an object. Yorke thereon observed that his host was to be envied his life passed so usefully and agreeably, and surrounded by the comforts of such a happy home; but Mr. Peevor did not accept this cheerful view of his position, remarking sadly that there were many anxieties connected with a

household of that sort: the servants were a sad trouble; he had had to change his butler three times in the last year, although he had got a treasure at last. And then cooks were so troublesome, Mrs. Peevor was nearly worried out of her life by them, although the housekeeper had a high salary, and ought to save her from such trouble; with her delicate health this naturally made him very anxious, after his past sorrows. This Yorke understood to be an allusion to the premature decease of a former Mrs. Peevor. Then somehow the conversation came round to his children; and Mr. Peevor—although still meandering off at intervals into the price-current line—explained that although he had made it a duty to bring up his girls with comforts around them—indeed what right-thinking father could do less?—yet he hoped he had not spoil them for a somewhat plainer life. The girls were girls, and of course could not expect to be always in their father's home; his first duty was towards his son, and the daughters must be content with a slenderer portion of such goods as he might possess. Not indeed that there would not be a trifle for each of them, if anything happened to him; in fact he might say he had not forgotten his daughters' claims upon him, and he had been able to reserve something substantial out of the means with which Providence had blessed him—nor would he let a trifle more or less stand in the way of a girl's happiness. Indeed the warning he had had from poor dear Maria's sad affair would naturally make him anxious to avoid such a misfortune again. And then, while Yorke was about to express his interest in this subject, on which his sympathy seemed to be invited, the worthy gentleman rambled off in maudering strains to the china and the bronzes, while his amused guest pursued the train of ideas suggested by what had gone before. Which of the girls, he thought, does he want me to marry? And to how many single gentlemen visiting here by turns has he made a similar confidence? And under the influence of this plain speaking, the sort of interest with which he had been regarding Lucy Peevor's pretty face during dinner was succeeded by a feeling of distrust.

When the gentlemen rose at last from table,—having, however, made between them a very small inroad on the contents of the five decanters,—and entered the drawing-room—the yellow drawing-room as it was called (they had assembled before dinner in another called the blue

drawing-room), and Yorke now saw this apartment for the first time, gorgeously furnished and ablaze with lights—they found the ladies all more or less asleep over their books and newspapers; but although there was a general waking up, it could not be said that the evening was very lively. It was now Mr. Peevor's turn to be sleepy; Mrs. Peevor was languid and silent; Miss Maria evidently posed as the confirmed invalid, from whom no share in entertaining company was to be expected; the young ladies, in awe of their visitor, the first colonel they had ever met, were shy, and did not volunteer to lead in the conversation. But Yorke was too modest to put down the silence to this cause; the young ladies he had been accustomed to meet were mostly talkative, not to say fast, and he put their reserve down to indifference or *gaucherie*. But observing that there was an enormous grand pianoforte in a corner of the room, he proceeded, as in duty bound, to put the young ladies through their musical paces. Miss Maria, however, it appeared, neither played nor sang; but Miss Catherine at his invitation sat down at the instrument—her father remarking by the way that the girls always had a course of finishing lessons from the best masters when the family was in town—and played a little piece in a more or less feeble manner; after which Miss Lucy, who sang but did not play, warbled nervously a couple of English ballads without any particular tune to her sister's accompaniment, while the guest could not help feeling sorry that she should exhibit herself to such disadvantage, for certainly she was a very pretty little girl. After this the numerous pictures on the walls naturally suggested a reference to the fine arts, and an inquiry as to the young ladies' accomplishments in this line. Miss Maria did not draw, but her sisters after a little pressing produced their portfolios—Mr. Peevor remarking parenthetically that he had secured Jenkins, A. R. A., to give them lessons during the two last seasons in town; a very rising man Jenkins, and of course as a rule he did not take pupils, but Mr. Peevor had made a special arrangement with him, which the guest readily understood to have been connected with the drawing of a cheque for an amount unusual in such transactions. Miss Catherine drew large heads of uncertain outline in chalk, Miss Lucy little landscapes in muddy water-colours, and Yorke knew so little about the matter that he was able to praise the performances (which

might have cost about a hundred guineas apiece) without hypocrisy. Miss Catherine brought out her portfolio in a matter-of-fact way, as if the performance were an accustomed one to be gone through; but Miss Lucy gave a toss of her little head while showing her part of the exhibition, as if she estimated it at its proper value. Then Mrs. Peevor and Miss Maria retired — invalid habits being implied in the parting ceremony — and an adjournment was proposed to the billiard-room, an ample chamber fitted up with luxurious settees. Cigars of admirable aroma were now produced, and Mr. Peevor insisted upon Yorke's lighting one, notwithstanding the young ladies' presence, observing that the girls liked the smell, and that these were some very rare tobacco which he had succeeded in procuring through a friend in Spain; he did not smoke himself, but he liked to keep a tolerable cigar for his friends.

The young ladies' performances at the billiard-table were not more brilliant than their efforts in the fine arts; and as Mr. Peevor himself, although careful to explain that the table was of a peculiar construction made to special order, turned out to be an indifferent player, the game was rather one-sided. But it did not last long; for as breakfast was ordered for nine o'clock the next morning on account of the hunting, Mr. Peevor soon became fidgety about his daughters not being up in time, and hurried them off to bed; and then before wishing his guest good-night at his room-door, gave a last order to the butler for the despatch of the tax-cart to Castleroyal the first thing in the morning; after which he proceeded to make the round of the house to see that all the bolts and bars were properly secured, and the warning-bells attached to all the windows, without taking which precaution nightly, he said, he should not be able to get a moment's sleep.

As Yorke in the retirement of his luxurious bedroom reflected with a sort of amused curiosity on the proceedings of the evening, he felt almost angry with himself at harbouring involuntarily a suspicion of his generous host's honesty. And yet the suspicion would come up. Is all this luxury and apparent wealth, he thought, a mere blind to delude the world?

And the stories came up to his mind of the different swindlers in recent years who had imposed upon the public for a brief space by prodigal scattering of money which did not belong to them. Does he want to get rid of one of his daughters before the impending smash takes place? Surely, if he is really the man of substance he appears to be, it would not be necessary to seek out a stranger like myself, a mere soldier of fortune, in order to get a husband for presentable, well-portioned daughters. Such wonderful eagerness is enough to make one suspicious. But this idea was quickly dismissed. Clearly there were no marks of the adventurer about Mr. Peevor. Nothing could be more in contrast to the uneasy forced composure that would be expected in the swindler who is striving to keep up appearances till ruin and exposure should overtake him, than the easy-going indolence of the worthy host, whose mind would not run upon trifles as it did if there were graver subjects to occupy it. Yet it seemed impossible to mistake the broad hints he dropped of his anxiety to dispose of his daughters. Mr. Peevor, however, was evidently a desperate fidget; and perhaps in view of poor Miss Maria's impending fate of old-maidhood before him, he had worked himself into a craze to make any reasonable match for the others before it was too late. Miss Maria had evidently been the victim of a disappointment. Yet why should eligible bachelors be wanting in such desirable quarters? And then Yorke, half ashamed of himself for his treachery to the passion which he taken a secret pride in cherishing for so long, amused himself with speculating on the absurdity of a lovmaking from which all the usual necessary ingredients of the pursuit should be wanting. No blind passion in this case, at any rate; it must be the mere caricature of the real thing when you set off by appraising all the lady's blemishes. To think of professing to make love to a girl when all the time you were criticising her little imperfections! Truly this would be a droll conclusion for a man who had prided himself on his power of romantic devotion. And after all, which of the two was it to be? Even this preliminary step was not yet settled. Thus musing, Yorke fell asleep.

From The Fortnightly Review.
DUTCH GUIANA.

CHAPTER III. THE RIVER.

"The river nobly foams and flows,
The charm of this enchanted ground,
And all its thousand turns disclose
Some fresher beauty varying round."

BYRON.

WITH a subdued silvery gleam, the surest promise in these latitudes of a clear day to follow, the sun peeped through the network of the forest that here does duty for horizon on every side, when our party mustered under the neat wooden pavilion of the landing-place between the parade-ground and the river,—I might have not less correctly said the highway. For the true highways of this land are its rivers, traced right and left with matchless profusion by nature herself, and more commodious could scarce be found anywhere. Broad and deep, tidal, too, for miles up their course, but with scarcely any variation in the fulness of their mighty flow summer or winter, rainy season or dry, so constant is the water-supply from its common origin, the equatorial mountain-chain, they give easy access to the innermost recesses of the vast regions beyond, east, west, and south; and where their tortuous windings and multiplied side canals fail to reach, Batavian industry and skill have made good the want by canals, straighter in course, and often hardly inferior in navigable capacity to the mother-rivers themselves. On the skeleton plan, so to speak of this mighty system of water communication, the entire cultivation of the inland has been naturally adjusted; and the estates of Surinam are ranged one after another along the margins of rivers and canals, just as farms might be along highways and byways in Germany or Hungary. Subservient to the water ways, narrow land paths follow the river or trench by which not every estate alone, but its every subdivision of an estate, every acre almost is defined and bordered, while the smaller dykes and canals are again crossed by wooden bridges, maintained in careful repair, but paths and bridges alike are of a width and solidity adapted to footmen only, or at best horsemen; the proper carriage road is the river or canal.

In a climate like that of Surinam, bodily exertion is a thing to be economized as much as possible; and accordingly everybody keeps his carriage, I mean his boat. That of the wealthy estate-owner, of the

vicarious "attorney" (not a professional one, I may as well remark for the benefit of those unused to West-Indian nomenclatures, but the holder of a power of attorney, on the proprietor's behalf), of the merchant, of the higher official, and generally of every one belonging to this or the other of what are conveniently called the "upper classes," is a comfortable barge, painted white for coolness' sake, and propelled by oars varying in number from four to eight.

A fresh-painted, well-kept eight-oar, with a cabin of the kind just described, but of the very largest dimensions, the sides, ceiling, hangings, cushions, all white, with a dash of gilding here and there; eight rowers dressed in loose white suits, with broad red sashes round their waists, and on their heads blue caps to complete the triple colours of the national flag, make a pretty show on the sunlit river; and the governor's barge might, for picturesque appearance, match the *caïque* of a Stamboul dignitary, besides being as much superior to the eastern conveyance in comfort, as inferior in speed. The white painted six-oar, four-oar, or even two-oar barges too, that abound for ordinary voyaging, though of course smaller in their dimensions and less gay in their accessories, are pleasant objects to look at, and may bring to mind the gondolas of Venetian waters; with this difference, that whereas the Adriatic crews are white, or what should be white, and the boats black, here the colours are, and not disadvantageously for pictorial effect, exactly reversed.

So much for the "genteeler sort." Larger yet and more solidly built, are the great lighter-like barges, whether open or partly covered, that convey down stream from the river-side estate casks of sugar or molasses, barrels of rum, sacks of cocoa, heaped-up yams, plantains, sweet potatoes, cocoa-nuts, cassava, and the hundred other well-known but too little-cultivated products of this teeming land. Alongside of these may be often seen the floating cottages of the so-called "bush negroes," well thatched and snug; each occupying half or more of a wide flat-bottomed boat, where two stalwart blacks in genuine African garb, that is, next to no garb (*vid.* the woodcuts in Winwood Reade's amusing narratives, *passim*), paddle rather than row; and any number of black ladies, hardly more encumbered by their costumes than their lords, with an appropriate complement of ebony children, these last in no costume at all, look

out from the cabin doors. In their wake follows a raft of cut timber, green-heart probably, or brown-heart, or purple-heart, or balata, or letter-wood, or locust-wood, or whatever other forest growth finds its market in town; and standing on it, one or more statuesque figures, that look as if they had been cut out of dark porphyry by no unskilful hand, and well polished afterwards, guide its downward course. Most numerous of all, light corials, that have retained the Indian name as well as build, each one hollowed out of a single tree-trunk, with sometimes a couple of extra planks roughly tacked on to the sides by way of bulwarks, paddle past us, under the guidance of one or two ragged negro labourers, or husbandmen, who exchange shouts, sometimes of jest, sometimes of quarrel, with their fellows in other boats or on the shore. These little skiffs, drawing scarce a foot of water when deepest laden, pass through the narrowest ditches that divide almost every acre of cultivated land on the estates from the other, and are the chief means of passage for the working folks on their way to and fro between country and town. When not in actual use they are kept sunk in water just deep enough to cover them, and thus preserved from the sun-heat, which would otherwise soon split the unseasoned wood. Lastly, a few clumsy boats of the ordinary longshore type, in the service of trade with the ships that lie anchored, giving out or taking in cargo off the town-wharf, mix up with the rest, and add their quota of variety to the river-crafts of Surinam.

However, on the present occasion it is neither barge, plain or gay, nor a boat, not even a corial, that is waiting to receive our party. A flat-bottomed river-steamer, one of the three that belong to the service of the colony, lies off the wharf; she draws about ten feet of water, and her duty is just now to convey us up the Commeweyne River, and its main tributary the Cottica, where lies the district which his Excellency has selected for our inspection, because affording the greatest variety of scenery and cultivation within easy reach of Paramaribo. I have said that the colony possesses three of these boats; the largest of them makes a voyage along the seacoast as far as Georgetown twice every month; the two smaller confine their excursions within the limits of river navigation.

In a few minutes we were all on board, a merry party, Dutch and English, official and non-official, military, naval, civilian and burgher, but all of us bent alike on

pleasing and being pleased to the best of our opportunities. Our boat was well supplied, too, with whatever Dutch hospitality — no unsubstantial virtue — could furnish for convivial need, and was commanded by a paragon of boat-captains — a bright-eyed, brown-faced little man, Scotch by his father's side, Indian by his mother's; himself uniting in physiognomy as in character the shrewdness and practical good sense of the former parentage with the imperturbable calm and habitual good-humour of the latter. Under such auspices we started on our way.

To enter the Commeweyne River we were first obliged to retrace a portion of the route by which I had arrived three days before, and to follow the downward course of the Surinam River for about eight miles, passing the same objects, no longer wholly new, but now more interesting than before, because nearer and better understood. Here is a plantation, seen by glimpses through the mangrove scrub that borders the river's bank; a narrow creek, at the mouth of which several moored barges and half-submerged corials are gathered, gives admittance to the heart of the estate. It is a vast cocoa-grove, where you may wander at will under three hundred and fifty continuous acres of green canopy — that is, if you are ready to jump over any number of small brimming ditches, and to cross the wider irrigation trenches on bridges, the best of which is simply a round and slippery tree-trunk, excellently adapted, no doubt, to the naked foot of a negro labourer, but on which no European boot or shoe can hope to maintain an instant's hold. Huge pods, some yellow, some red, — the former colour is, I am told, indicative of better quality — dangle in your face, and dispel the illusion by which you might, at first sight of the growth and foliage around you, have fancied yourself to be in the midst of a remarkably fine alder-tree thicket; while from distance to distance broad-boughed trees of the kind called by the negroes "coffee-mamma," from the shelter they afford to the plantations of that bush, spread their thick shade high aloft, and protect the cocoa-bushes and their fruit from the direct action of the burning sun. Moisture, warmth, and shade — these are the primary and most essential conditions for the well-doing of a cocoa-estate. Innumerable trenches, dug with mathematical exactitude of alternate line and interspace, supply the first requisite; a temperature that, in a wind-fenced situation like this, bears a close resem-

blance for humid warmth to that of an accurately shut hothouse, assures the second; and the "coffee-mamma," a dense-leaved-tree, not unlike our own beech, guarantees the third. Thus favoured, a Surinam cocoa crop is pretty sure to be an abundant one. Ever and anon, where the green labyrinth is at its thickest, you come suddenly across a burly creole negro, busily engaged in plucking the large pods from the boughs with his left hand, and holding in it so, while with a sharp cutlass held in his right he dexterously cuts off the upper part of the thick outer covering, then shakes the slimy agglomeration of seed and white burr clinging to it into a basket set close by him on the ground. A single labourer will in this fashion collect nearly four hundred pounds' weight of seeds in the course of a day. When full the baskets are carried off on the heads of the assistant field-women, or, if taken from the remoter parts of the plantation, are floated down in boats or corials to the brick-paved courtyard adjoining the planter's dwelling-house, where the nuts are cleansed and dried by simple and inexpensive processes, not unlike those in use for the coffee-berry; after which nothing remains but to fill the sacks, and send them off to their market across the seas.

A Guiana cocoa-plantation is an excellent investment. The first outlay is not heavy, nor is the maintenance of the plantation expensive — the number of labourers bearing an average proportion of one to nine to that of the acres under cultivation. The work required is of a kind that negroes, who are even now not unfrequently prejudiced by the memory of slave days against the cane-field and sugar-factory, undertake willingly enough; and to judge by their stout limbs and evident good condition, they find it not unsuited to their capabilities. More than four million pounds' weight of cocoa are yearly produced in Surinam, "which is a consideration," as a negro remarked to me, labourously attempting to put his ideas into English, instead of the Creole mixture of every known language that they use among themselves. Neither coolies nor Chinese are employed on these cocoa-estates, much to the satisfaction of the creoles, who though tolerant of, or rather clinging to, European mastership, have little sympathy with other coloured or semi-civilized races. Some authors have indeed conjectured that the West-Indian labourer of the future will be a cross-mixture of the African and the

Asiatic; but to this conclusion, desirable or not, there is for the present no apparent tendency, either in Surinam or elsewhere. As to the Indians of these regions, they keep to themselves, and their incapacity of improvement, combined with hereditary laziness and acquired drunkenness, will, it seems, soon render them a mere memory, poetical or otherwise, of the past.

Soil, climate, and the conditions of labour, all here combine to favour the cocoa-plant; and accordingly, out of the thirty thousand acres actually under cultivation in Dutch Guiana, we find that a sixth part is dedicated to its production. More would be so, but for the time required before a fresh plantation can bear a remunerative crop; five or six years must, in fact, elapse during which no return at all is made, "which is a consideration" also, though in an opposite sense to that quoted above.

Cocoa prospers; but after all said and done, sugar, the one thing that for two centuries and more has been to the West Indies — Dutch, French, Spanish, or English — what cloth is to Manchester, cutlery to Sheffield, or beer to Bavaria, is even now, despite of emancipation, free-trade, beetroot, prohibitive regulations, American tariffs, and the whole array of adversities mustered against it for the last fifty years, the "favourite" of the agricultural racecourse, and holds with regard to other products, however valuable, the same position as the queen of the chess-board does when compared with the remaining pieces. Indeed in some — Demerara, for instance — sugar reigns, like Alexander Selkirk on his island, not only supreme, but alone; while in Surinam, where, more than in the generality of West-Indian regions, she has many and, to a certain extent, successful rivals to contend with, she vindicates a full half of the reclaimed soil for her exclusive domain. Previous to emancipation, four-fifths at least were her allotted share. No fuller evidence of her former sway need be sought than that which is even yet everywhere supplied by the aspect of the great houses, gardens, and all the belongings of the old sugar-plantations, once the wealth and mainstay of the Dutch colony. The garb is now too often, alas, "a world too wide for the shrunk shanks" of the present, but it witnesses to the time when it was cut to fitness and measure.

And here on our way, almost opposite the cocoa-plantation with its modern and modest demesnes that we have just visited,

appears the large sugar-estate of Voorburg, close behind Fort Amsterdam, at the junction point of the river. Let us land and gladden the heart of the manager — the owner is, like too many others, and the more the pity, an absentee — by a visit. Happy indeed would he be, in his own estimation at least, were we to comply with his well-meant request of riding round every acre and inspecting every cane on the grounds. But as these cover five hundred and sixty acres of actual cultivation, besides about a thousand more of yet unreclaimed concession; as the sun, too, is now high enough to be very hot, and we have other places to visit and sights to see, we will excuse ourselves as best we can, though by so doing we mark an indifference on our part to the beauties of the cane-field that he may forgive, but cannot comprehend.

I may remark by the way that in this respect every planter, every manager, Dutch, English, Scotch, or Irish, in the West Indies is exactly the same. None of them, in the intense and personal interest they take in every furrow, every cane, can understand how any one else can feel less; or how, to the uninitiated eye one acre of reed is very like another; one ditch resembles another ditch; just as the sheep in a flock are mere repetitions the one of the other to all but the shepherd; or as one baby resembles any baby to every apprehension except to that of the mother or, occasionally, the nurse. Let us, however, respect what we are not worthy to share; and do thou decline regretfully, O my friend, but firmly — if thou desirest not headache and twelve hours' subsequent stupefaction at the least — the friendly invitation to "ride round" the estates, in a sun heat say of 140° F., for two whole hours, it cannot be less; while a super-copious breakfast, and all kinds of cheerful but too seductive drinks, are awaiting you on your return. Accompany us rather on the quiet circuit we will now make about the house, the labourers' cottages, the outbuildings, and two, at most three, acres of cane, and when in future visiting on thy own account, go thou and do likewise.

Nor is even the following picture of Voorburg to be taken as a photographic likeness, but rather an idealized view, combining details taken from other subjects with those of the above-named locality, and true to many, indeed most, sugar-estates of this region, because limited to the exact facts, statistical or pictorial, of none.

Wood or brick, more often the former,

the landing-place, or *stelling*, receives us, and on traversing it we are at once welcomed by the shelter — half a minute's exposure to the sun will have made you desire it — of a cool, well-swept, well-trimmed avenue, most often, as it happens to be at Voorburg itself, of mahogany-trees, dark and clustering, sometimes of light green almond-trees, or locust-trees, or it may be of palms, especially betel; this last selected rather for the perfect beauty of symmetry, in which it excels all other palms, than for shade. To this avenue, which may be from fifty to a hundred yards long, succeeds an open garden, laid out in walks where "caddie" does duty for gravel, and flower-beds in which roses, geraniums, verbenas, jessamines, and other well-known Europeanized flowers and plants, mix with their tropical rivals, of equal or greater beauty and sweetness; their names — ah me, I am no botanist; enough if wonderful passion-flowers, noble scarlet lilies, and gorgeous cactus-blossoms be mentioned here; Canon Kingsley's chapter on the Botanical Gardens of Trinidad may be safely consulted for the rest. Among the beds and garden-walks keep sentinel, in true Batavian fashion, quaint white-painted wooden statues, mostly classical after Lemprière, "all heathen goddesses most rare," Venuses, Dianas, Apollos, Terpsichores, Fortunes on wheels, Bacchuses, fauns, occasionally a William, a Van Tromp, or some other hero of Dutch land or main, these last recognizable by the vestiges of cocked hats and tail coats, as the former by the absence of those or any other articles of raiment; and all with their due proportion of mutilated noses, lopped hands, and the many injuries of sun, rain, and envious time.

But stay, I had almost forgotten to mention the two iron popguns, that command the landing-place, and flank on either side the entry of the avenue; imitation cannon, that in everything except their greater size are the very counterparts of those "devilish engines" that our early childhood thought it a great achievement to load and fire off. Here the children's part is played not unsuccessfully by the negroes themselves, who at seventy years of age have no less pleasure than we ourselves might have felt at seven, in banging off their artillery in and out of all possible seasons, but especially on the approach of distinguished and popular visitors like his Excellency the governor, with whom I am happily identified, so to speak, during this trip. But this is not all; for within the garden, close under the house win-

dows are ranged two, four, or even six more pieces, some shaped like cannon, others like mortars; and these too are crammed up to their very mouths with powder and improvised wadding, and exploded on festive occasions; when, as ill-hap will have it, their over-repletion often results in bursting, and their bursting in the extemporized amputation of some negro arm, leg, or head, as the case may be. But though I heard of many a heartrending or limb-rending event of the kind, I am thankful to say that I witnessed none during our tour, though of explosions many.

Next a flight of steps, stone or brick, guarded by a handsome parapet in the Dutch style, and surmounted by a platform, with more or less of architectural pretension, leads up to the wide front door; by this we pass and find ourselves at once in the large entrance hall, that here, as formerly in European dwellings, serves for dining-room and reception-room generally. The solid furniture, of wood dark with age, gives it a quasi old-English look; and the gloom, for the light is allowed but a scanty entrance, lest her sister heat should enter too, is quasi English also. But the stiff portraits on the wall, ancestors, relatives, Netherland celebrities, royal personages, governors, etc., etc., are entirely Dutch and belong to the wooden school of art. The central table is of any given size and strength, and has been evidently calculated for any amount of guests and viands. We shall partake of the latter before leaving, and bestow well-merited praise on cook and cellar. Besides the hall are other apartments, counting-rooms, and so forth; above it is a second story, above it a third, for the brick walls are strong, and hurricanes are here as in Demarara unknown; over all rises a high-pitched roof; the wolf, or griffin, or lion, or whatever crest the original proprietor may have boasted, figures atop as gable-ornament or vane. The whole forms a manor-house that might have been transported, by substantial Dutch cherubs of course, as the Loretto bauble was by slim Italian angiolets, from amid the poplars of Arnheim or Bredvoort, and set down on the banks of Commeweyne. Only the not unfrequent adjuncts of a trellised verandah, and a cool outside gallery, are manifestly not of extra-tropical growth.

We have received our welcome, and drunk our prelutory schnapps. And now for the sight-seeing. The factory, where the canes, crushed into mere fibre as fast

as the negroes can lift them from the canal-barge alongside on to the insatiable rollers close by, give out their continuous green frothy stream, to be clarified, heated, boiled, reboiled, tormented fifty ways, till it finds refuge in the hogsheads or rum-barrels; resembling in every stage of its course its counterpart in Demerara, or Jamaica, minus, however, except in one solitary instance, the expensive refinements of the centrifugal cylinder and vacuum-pan. But for mere delectation, unless heat, vapour, noise, and an annihilation of everything in general be delectation, which I hardly think, no man need linger in a factory, nor, unless he desires premature intoxication on vapour, in a rum-distillery either. Worth attention, however, and admiration too, is the solidity of construction by which the huge mass of building, doubly heavy from the ponderous machinery it contains, besides its clustering group of out-houses, megass-sheds, tall chimneys, store-places, and the rest, is enabled to support itself upright and unyielding on a soil so marshy and unstable. The foundations in many instances, I am told, exceed by double in dimension the buildings above.

Ingenious bees these sugar-making ones. Let us next look at the hives of the workers. These workers, or, metaphor apart, labourers, are here, at Voorburg I mean, and on not a few other estates, of three kinds, coolie, Chinese, and creole. And, should any one, smitten with a desire for accuracy and statistics, wish to know their exact numbers in this particular instance, the coolies at Voorburg are ninety all told, the Chinese one hundred and eighty-one, the creoles or colonial-born negroes, two hundred.

First to the coolies. Their introduction into Surinam is of recent date, little over two years, in fact; but everything has been organized for them on exactly the same footing as in Demerara or Trinidad. They have their agents, here and in India, their official protector, a very efficient one in the person of Mr. A. C—, her Majesty's consul; their labour and pay regulations are textually identical with those of Demerara; they are duly provided with a medical staff and hospitals; in a word, they are, if anything, more fenced in here from every shadow of a grievance than even in an English colony; Mr. Jenkins himself could not ask more for his *protégés*. The eye recognizes at once the regulation cottages, all like pretty maids—but here the similarity ceases—of a row, with garden spaces attached, back

yards, verandahs, and every attention paid by the constructors to dryness, ventilation, and whatever else a Parliamentary inspector of the most practical type could desire. Thus much is done for the immigrants; but except to amass money, with an occasional whiff at the *hookah* between times, from morning to night, the "mild Hindoo" is not inclined to do much for himself. His garden, ill-planted and ill-cared for, is a sorry sight; his dwelling, for what concerns the interior, is a cross between a gypsy-hut and a rag-shop, and a pinched, stingy meanness characterizes his every belonging no less than himself. That he may also excel in "grace, ease, courtesy, self-restraint, dignity, sweetness, and light," I am ready, of course, with all believers in "At Last," to admit. But I do it on faith, the evidence of things not seen either in the West Indies or the East. Low-caste Hindoos in their own land are, to all ordinary apprehension, slovenly, dirty, ungraceful, generally unacceptable in person and surroundings; and the coolies of Voorburg may have been low-caste, very likely. Yet offensive as is the low-caste Indian, were I estate-owner, or colonial governor, I had rather see the lowest parias of the low, than a single trim, smooth-faced, smooth-wayed, clever, high-caste Hindoo on my lands or in my colony.

But for the untidiness, I might say shiftlessness of the Surinam-planted coolies some allowance must be made. They are new comers in a land, among what are to them new races, and if it takes some time even for the European under such like circumstances to pluck up heart and be a-doing, the process of adaptation is yet slower for the Asiatic. In Demerara, where they have now dwelt for years with Europeans to stimulate and direct them, and negroes to teach them gardening without doors and tidiness within, the coolies certainly make a better show, and so do their dwellings. But they have much as yet to learn in Surinam.

Passing a dyke or two, we come next on the Chinese cottages, in construction and outward arrangement identical with those of the coolies, or nearly so. The gardens here show a decided improvement, not indeed in the shape of flowers, or of any of the pretty graceful things of the soil, for of such there are none here; but there are useful vegetables and pot-herbs in plenty; spade and hoe, manure and water, care and forethought, have done their work and are receiving their reward. But the inside of a Chinese

dwelling—*guarda e passa*. Well, Chinenamen are fond of pigs, and if they have a fancy themselves to live in pigstyes, it is all in character.

A dyke or two more has to be crossed, and we enter the creole village. Here regulation has done less, and individual will and fancy more. But the negroes are Dutch-trained, and have an idea of straight lines and orderly rows, by no means African; though in the English-like preference given to isolated dwellings in which each household can live apart over conjoint ones, they do but follow the custom of their ancestral birth-place. Their gardens are well-stocked, not with fruit and vegetables only, with plantains, mangoes, bananas, yams, sweet-potatoes, peas, and the like things good for food, but also with whatever is pleasant to the eye; with gay flowers, twining creepers, bright berries, scarlet and black; in fine, with the brilliant colours and strong contrasts that befit African taste. Inside their dwellings are comfortable, and in most instances clean, neatly arranged, too, though the space is very often overcrowded with furniture, the tables covered with cheap glass and crockery, more for show than use, and the walls hung round with a confused medley of gaudy prints. These creoles evidently know how to enjoy life, and have resolved to make the best of it; the wisest resolution, it may be, for us mortals in our little day.

From The Cornhill Magazine.

SELF-ESTEEM AND SELF-ESTIMATION.

MOST persons, one supposes, have with more or less distinct consciousness framed a notion of their own value, if not to the world generally, at least to themselves. And this notion, however undefined it may be, is held to with a singular tenacity of belief. The greater part of mankind indeed seem never to entertain the question whether they really possess points of excellence. They assume it as a matter perfectly self-evident, and appear to believe in their vaguely conceived worth on the same immediate testimony of consciousness on which they assure themselves of their personal existence. Indeed the conviction of personal consequence may be said to be a constant factor in most men's consciousness. However restrained by the rules of polite intercourse, it betrays its existence and its energy in innumerable ways. It displays

itself most triumphantly when thrown into sudden isolation, when others unite in heaping neglect and contempt on the believer's head. In these moments he proves an almost heroic strength of confidence, believing in himself and in his claims to careful consideration when all his acquaintance are practically avowing their disbelief. This intensity of belief in personal value may be observed in very different forms. The young woman who quite independently of others' opinion, and even in defiance of it, cherishes a conviction that her external attractions have a considerable value; the young man who, in the face of general indifference, persists in his habit of voluble talk on the supposition that he is conferring on his fellow-creatures the fruits of profound wisdom; and the man of years whose opinion of his own social importance and moral worth is quite disproportionate to the estimation which others form of his claims: these are but some of the many illustrations of that firm and unshakable persuasion of personal value which is so deeply rooted in human nature.

Yet while this supposition is so very general, and always attended with such a strength of conviction, it is to be noticed that the conception of value which people associate with their personality is commonly a very vague one. In order to have a definite idea of the worth of a thing we must obviously possess a standard of value, and we must consciously compare the particular object with other things which have this same kind of value. Thus if a girl wished to form a clear notion of the æsthetic value of her features, or of her general deportment, she would require a distinct conception as to what constitutes real beauty of person, and she would need too to think of other instances of those pleasing possessions in order to discover how high she stands in the hierarchy of beautiful or elegant women. It is scarcely necessary to say that people's estimate of themselves is very rarely of this precise character. As to what really makes a man or a woman valuable, whether in a moral or in any other aspect, a person has no doubt some more or less clear idea when gauging the worth of another, but he rarely keeps a distinct conception before his mind when carrying out his easy methods of self-estimation. Many a man who has the deepest conviction of his dignity would be quite at a loss if called on to name the elements of his character to which this respect is due. Nay, people may even be fully persuaded that they are of great

moral excellence and still be quite confused as to where exactly their virtues lie. Scarcely less obscure seems to be most persons' conception as to their exact relative position in the scale of valuable people. Many, no doubt, could so far define their notion of their own worth as to fix according to their own opinion their relation to some few of their acquaintances. Thus the young man who has a firm belief in the social value of his conversational rhetoric, might most probably connect with this idea a vague reference to one or two rivals in his art. That is to say, his self-estimation might be reducible to the proposition, "At any rate I am able to beat B and C by a long interval." It is probable that very many people who cherish an opinion of their own personal attractions or moral excellence habitually define their supposed value by a reference to one or two such favourable objects of comparison. The conviction of their worth naturally solidifies, so to speak, in the definite shape, "I feel myself to be superior to X or Y." Where even this incomplete comparison is lacking, a person's appreciation of himself must be in a very hazy condition indeed. A man or woman who constantly cherishes the idea of personal worth, and yet is unable to define this worth by comparison with the qualities of others, may be said to have a belief, but scarcely one which is reducible to distinct propositional form. The affirmation, "I am of a very high but wholly undefinable value," may perhaps be looked on as a rudimentary proposition; but where the terms are wholly indefinable the amount of information which such a statement conveys must be regarded as infinitesimal. Yet this is probably the utmost which a very large number of persons, who are deeply convinced of their individual importance, could attain as a verbal expression of their belief. The additional mention of the kind of valuable quality on which the person bases this vague judgment scarcely affects the degree of its vagueness. When a person inwardly affirms "I am very wise," or "I am very self-denying," and has not the remotest idea whether and by how much he surpasses any given known example of this quality and the average attainment of it, he seems to be stating something like a distinct proposition, but in reality he is cherishing one of the vaguest of beliefs.

The common form of self-estimation is, then, a vague but ineradicable persuasion of personal excellence of some more or less distinctly conceived variety in a de-

gree that is hardly made distinct at all, and can only be defined as a superlative with a positive and comparative suppressed. We do not say that this kind of belief in personal dignity of some kind is a universal attribute of mankind. Among civilized people at least one may find a few individuals who are singularly deficient in this respect. They appear to be wholly indifferent to the question of their merits, whether in their own eyes or in those of others. Such *naïve* natures are too practical to trouble themselves about what seems so useless a point, and their shrewd common sense perceives in the habit of thinking about one's self at all something exceedingly silly and laughable. Their customary attitude with respect to themselves and their deserts is one of contented indifference. Yet though in such robust minds there is no chance for a distinct idea of self or of its value to rise into consciousness, careful observation may generally discover signs of a latent impulse to think well of one's qualities and actions. We may perhaps look on persons of this character as possessing the habit of self-estimation in its most rudimentary and but partially conscious stage.

There is another class of seeming exceptions to our general theory which calls for special notice. We refer to those persons who appear habitually to depreciate themselves and their doings. Every one has no doubt fallen in with such extremely modest individuals, who are disposed to make a very low estimate of themselves, even when others approve their conduct. In some of these cases it seems clear that the humble opinion thus professed is to a certain degree affected, for the simple reason that such a modest self-esteem is itself regarded as a graceful and even virtuous possession. But allowing for these ambiguous cases, there appears to be a considerable number of minds which sincerely entertain a very unfavourable opinion of themselves. They are quick and sensitive in finding holes and stains in their moral garment, and are inclined to pass over their best qualities as things of little or no account. Yet even in these instances we think it is possible to discover ample traces of the natural impulse to think well of one's self, only that it shows itself here in a more subtle and partially disguised form. The state of mind of the persons we are now speaking of seems to be the resultant of two forces, a desire to approve one's self and a conscientious fear of judging one's qualities

and actions too favourably. That is to say, the disposition to entertain an elevated estimate of one's self is checked and limited by a fine conscientious sensibility, and is reduced to a nascent impulse, a half-hidden desire. When this conscientious sensibility becomes extreme, it assumes the shape of a morbid tendency to see only the unfavourable aspects of one's character. In these rare cases the impulse we have been discussing betrays its presence indirectly only, namely, in the mental distress and disappointment which evidently accompany the very lowly self-estimate formed in these instances. Finally, if there are persons who appear sincerely to believe in their own insignificance and worthlessness, and yet are unaffected with the distress of which we have just spoken, we may reasonably presume that they belong to the class of healthy objectively disposed minds which cannot bring themselves to reflect distinctly on their own merits. The disavowal of worth with such persons may be regarded as their protest against the habit of indulging in the pleasures of self-esteem. They half make themselves believe that their importance is zero as a logical justification for their habitual neglect of themselves as objects of reflection.

It would seem, then, that the disposition to think highly of one's self in the vague manner before described is eminently a natural instinct of the human mind. Even where it does not become conscious of itself, so to speak, in a flattering conviction of personal excellence, its indirect action may be traced in a number of ways. Like a force in mechanics which does not produce motion, its presence and its intensity are inferable from the amount of counteracting force which is called into requisition in order to destroy its effect. Since, then, this habit of favourable self-estimation is so common a trait in human nature, it may be worth while to look into its sources, to peer down into the dark cavernous recesses of the mind from which it wells forth.

We have found that the characteristics of this opinion of personal excellence are the intensity of the belief and the vagueness of the conceptions entertained. Now both of these features point to the conclusion that this particular belief is much more of a sentiment or emotion than an intellectual cognition. That is to say, people somehow *feel* themselves to be of value without distinctly perceiving the presence and exact situation of this value. Mr. Lewes has lately insisted on the prop-

osition that all cognition springs from feeling, that emotion is the earliest and rudest stage of knowledge. The immediate feeling of the moment gives me the minimum of information respecting a thing. The utmost which it teaches is the presence of some vaguely defined quality in a wholly undefined degree. For example, the mind of a child who lights on a bit of brilliant colour in a book, and utters some exclamation to indicate its pleasurable admiration, is for the moment exclusively impressed with the beauty of these particular tints. To the child's consciousness at the moment this object is incomparably, absolutely beautiful. It could not explain where the charm lay, or contribute in the least to the solution of the question *how* beautiful this particular object is. Here we see how feeling pure and simple, while giving rise to the very strongest assurance, yields the subject of it scarcely any knowledge. True knowledge begins with discrimination of one thing from another, and a comparison of several things which have some feature in common; and these processes necessarily involve a limitation of feeling. In the first pleasurable excitement with which one listens to a new and delicious melody it would be wholly impossible to pass any judgment on the nature and degree of its beauty. For the instant its charm is boundless and absolute. Just so we may see that the self-estimation of most persons is the intense assurance of an immediate feeling, and not the calm conviction which attends a clear intellectual perception.

But how, it may be asked, does this assurance of personal dignity spring immediately out of a present feeling, as the conviction that a thing is beautiful springs out of the pleasurable emotion which it calls forth? And further, what feeling have we in regarding ourselves at all analogous to the pleasurable sensations which are excited by beautiful objects? To the second of these questions it may be answered, that there is a feeling instinctively connected with self, which shows itself more and more distinctly *pari passu* with the growth of the idea of self. We can watch this double growth taking place in young children who betray a simple sentiment for self as soon as their minds can be supposed to form any conception of it. It is very hard to define this feeling more precisely than by terming it a rudimentary sense of personal importance. It may show itself in very different ways, taking now a more

active form, as an impulse of self-assertion, and a desire to magnify one's own will to the suppression of others' wills, and at another time wearing the appearance of a passive emotion, an elementary form of *amour propre*. And it is this feeling which forms the germ of the self-estimation of adults. For in truth all attribution of value involves a feeling, namely, a kind of respect and a desire to possess, and the ascription of value to one's self is in its simplest form merely the expression of this state of feeling.

But how is it that this feeling shows itself instinctively as soon as the idea of self begins to arise in consciousness? The answer to this question is to be found, we imagine, in the general laws of mental development. All practical judgments like that of self-estimation are based on some feeling which is developed before it; and, again, feeling itself is based on some instinctive action which in like manner is earlier than the feeling. Thus, for example, an Englishman's judgment that his native country is of paramount value springs out of a long-existent sentiment of patriotism, which sentiment again may be regarded as having slowly grown up about the half-blindly followed action of defending and furthering the interests of one's nation or tribe. In a similar way, one suspects, the feeling of personal worth, with its accompanying judgment, is a product of a long process of instinctive action. What this action is it is scarcely necessary to remind the reader. Every living organism strives blindly or consciously to promote its own life and well-being. The actions of plants are clearly related to the needs of a prosperous existence, individual first and serial afterwards. The movements of the lower animals have clearly the same end. Thus, on the supposition that man has been slowly evolved from lower forms, it is clear that the instinct of self-promotion must be the deepest and most ineradicable element of his nature, and it is this instinct which directly underlies the rudimentary sentiment of self-esteem of which we are now treating. First of all, there is the unreflecting organized habit of seeking individual good, of aiming at individual happiness, and so of pushing on, so to speak, the action of the individual will. This instinct shows itself in distinct form as soon as the individual is brought into competition with another similarly constituted being. It is the force which displays itself in all opposition and hostility, and it tends to limit and counteract the

gregarious instincts of the race. In the next place, as the human mind expands this instinctive action becomes conscious pursuit of an end, and at this stage the thing pursued attracts to itself a sentiment. The individual now consciously desires his own happiness as contrasted with that of others, knowingly aims at enlarging its own sphere of action to the diminution of others' spheres. Here we have the nascent sentiment of self-esteem, on which all later judgments respecting individual importance are, in part at least, founded. Thus we see that long before man had arrived at an idea of self there had been growing up an emotional predisposition to think well of self. And in this way we may understand how it is that this sentiment of self-esteem shows itself immediately and instinctively in the child's mind as soon as its unfolding consciousness is strong enough to embrace the first rough idea of personal existence. Far down, so to speak, below the surface of distinct consciousness, in the intricate formation of ganglion-cell and nerve-fibre, the connections between the idea of self and this emotion of esteem have been slowly woven through long ages of animal development.

Here, then, we have the key to the intense assurance with which men entertain the idea of their personal value. Their own worth is felt instinctively, and cannot admit of doubt to themselves. The very fact that they desire their own well-being makes this object a good *per se*. Just as the child that is charmed with the patch of brilliant colour is intuitively and unshakably assured of its real beauty, so the man or woman in whose mind the idea of personal aims is habitually surrounded with a feeling of pleasurable liking and approval can entertain no doubt as to the real worth of this object. This confidence expresses itself in the axiomatic and unassailable proposition, "I am of supreme account to myself." If we can conceive it possible for man to have been so developed that all his instincts were, directed to the injury of individual interests and to the furtherance of others' good exclusively, this proposition would not only be bereft of its axiomatic character, but assume the appearance of an absurd paradox.

We can see, too, now more clearly how it is that this judgment of personal worth commonly takes so vague and undefinable a form. The feeling on which it is based, like that of the admiration awakened by beautiful objects, excludes all

thought of "how" and "how much." Not only so, this feeling for individual welfare is a unique sentiment which, unlike that of beauty, is not susceptible of being defined by a comparison of objects. Nobody ever feels another to be of value to him in the same way as he is so to himself. A man may come to set a high worth on another either by discovering the close connection of his own interests with those of this second person, or by sympathetically identifying himself with this person; but the feeling is never of the same kind as that which he uniformly entertains for himself. In other words, the instinctive sentiment of self-esteem does not admit of comparison, and so remains a wholly indeterminable quantity. People never say that they esteem themselves twice or thrice as highly as they esteem some other person. Their idea of personal value is only definable as falling into the superlative degree.

Now, if the feeling of self-esteem always remained in this simple primitive form, there could be no room for the question of the truth or falsity of its accompanying judgment. As we have said, a person's affirmation of his supreme value to himself is a proposition which cannot be shaken by any amount of evidence. But self-estimation is not all of this sort. People form estimates of themselves which clearly have a relation to the perceptions of others, and which, therefore, admit of being contradicted. Thus, for example, a youth plumes himself on the possession of great critical powers, and so makes an affirmation with respect to a matter of fact of which others can take cognisance; or a young woman indulges the pleasing supposition of high personal beauty, and so appeals to the impressions of others. It is obvious that in all such cases as these, where there is a question of objective worth, as distinct from worth to the individual, or where there are involved certain comparisons between individuals as well as observations on the ways in which qualities display themselves, the individual's judgment may be very far wrong indeed, and is, indeed, pretty certain to be wrong if there is any bias operating in a given direction. Now, such a bias there is in the deeply fixed instinct of self-exaltation already spoken of. People, as we have remarked, naturally pass from the premise, "I am of importance to myself," to the conclusion, "I am of importance absolutely." And this habit of mind bears fruit in a number of ways, serving to modify all one's judgments respecting

personal value. Thus, if a man is thinking of his moral worth, he is unconsciously predisposed to make this possession not only too large, but indefinitely vast, through the underplay of the instinct of self-regard. That is to say, he will be inclined to conceive his moral excellence as a vaguely circumscribed area, just as he is wont to think of his personal importance as an undeterminable and boundless extension. We must add to this that there is a powerful desire to possess this moral excellence, or at least the external signs of it, as a thing which profits the individual in innumerable ways. This desire naturally acts like every form of human wish as a bias to belief, predisposing the mind to accept the reality of the thing wished for. In this way we can understand how it is that a man's opinion respecting his own moral worth is so exceedingly unsafe an authority on the matter.

The precise way in which the natural instinct to magnify self acts in biasing a person's judgment respecting the degree in which he possesses any particular excellence, such as wisdom, artistic skill, or grace of manners, would be a curious study, had we the time for pursuing it. It must suffice to remind the reader that feeling influences belief *mediately* by influencing the ideas involved in the belief. Thus the wish for fame, by constantly keeping the idea of fame vividly before the mind, fosters a belief in its future reality. So the disposition to make much of self affects one's belief in any particular quality of value, by operating on the ideas involved. Thus the young woman whose instinct of self-importance works in the direction of clothing herself with external beauty, will be found to be continually dwelling on this idea, which accordingly becomes singularly vivid and persistent. Not only so; most people who cherish such flattering opinions respecting themselves seek more or less thoroughly to ground their belief on fact. Most persons, too, can discover some facts which give a colour of justness to these favourable judgments. Thus, for instance, a man who is strongly disposed to think highly of his benevolence can easily find actions which, *primâ facie* at least, seem to possess the desired quality. So a young woman who would fain think herself pretty, finds no difficulty in singling out one or two points in feature or figure which support this supposition. Now the emotional impulse just described fastens, so to speak, on any such favourable rec-

ollections as these, holds them as vivid ideas in the mind, and so serves to strengthen belief by the presentation of carefully selected evidential facts. In much the same way the disposition to exalt some quality of one's own gives a greater chance of persistence to the idea of those persons with whom one can most easily compare one's self to one's advantage. If, for example, a person is strongly inclined to believe in his own powers of humour he will commonly fall into the habit of measuring his degree of excellence by a reference to some professed cultivator of this quality who is not too high in the list to be plausibly set below himself.

Such then seems to be the character of self-estimation in the large majority of cases. The judgment formed respecting one's several good qualities appears to be grounded with more or less of distinct consciousness on some indisputable fact; but in reality the great force which determines the belief is not regard for the truth of things, but the firmly planted instinct to assert and to exalt one's self against all others who may at any time present themselves.

But is no higher kind of self-appreciation possible? Is there not such a thing as self-estimation in its more rigorous sense as opposed to self-esteem? It is certain that very celebrated men, and very excellent men, have at least supposed themselves capable of passing a perfectly unbiassed judgment on their genius or moral worth. Indeed, it may be said that philosophers, from the time of Socrates, have insisted on the duty of the individual's forming a correct estimate of his own powers, and to this end have made the motto, "Know thyself," the foundation-stone of their practical as of their theoretical teaching. It will be a fitting conclusion to this account of self-estimation to examine into the nature and limits of this exact method of self-appreciation. And in order to be as clear as possible, we will confine ourselves to *moral* self-estimation. The problem, then, which we have to discuss is how far an individual can appreciate his own degree of moral worth, as an objective quality which is real to others as well as to himself, and as measured by the same standard which he uniformly applies to the moral character of others.

We must assume, of course, that there exists in the individual's mind a sincerely conscientious desire to arrive at the real truth of the matter. To this end he must

be endowed with a highly developed conscientious sensibility, and so be capable of conceiving and recognizing the worth of others, and the desirability of their welfare. Moreover, it is obviously requisite that the desire to judge himself impartially should be powerful enough to keep in check that emotional tendency to exalt self unduly, about which we have said so much. Given these conditions, what difficulties stand in the way of a perfectly exact conclusion with respect to this matter?

The first thing which has to be done in forming such a judgment is to separate sufficiently the judging from the judged parts of the individual, to set one's self as a moral character distinctly before one's self as a critical observer. For no valid conclusion can be obtained here till the person is able to step away from himself, so to speak, in thought, and to regard his own character *ab extra*, just as a second person would view it. Only in this way will the conclusion formed have an objective validity. The very meaning of impartial and exact self-appreciation is that the individual should place himself at the point of view of an outside observer of indisputable clearness of vision and justness of judgment.

Now, it must be evident to a reflective mind that such a perfect disentanglement of the estimating subject from the estimated object is a very difficult matter, and, if possible at all, can only be realized where there is a very high condition of intellectual discrimination and voluntary control of thought. To look on one's self calmly and fixedly as an object to be distinctly observed and accurately measured, requires, it is obvious, no inconsiderable powers of intellectual abstraction and mental concentration of thought. In addition to this there is the immense difficulty of viewing one's self with a perfectly disinterested attitude of mind. For a man to contemplate himself, if only for an instant, as something perfectly indifferent, and to examine the make and quality of this object with the same unconcern as he would experience were the person some anonymous examination candidate whom he was called on to pass or pluck, is manifestly a very difficult mental achievement. Even to look back on one of our recent actions and to estimate its moral value perfectly unimpeded by the emotional suggestions of the action — forgetting for the nonce that it was our own action, prompted by certain desires, and resulting in some pleasurable satisfaction or painful disappointment — requires a considerable pow-

er of mental abstraction. How much more to separate off, in one single conception, the moral aspects of not one, but a myriad actions, and not only actions, but intentions, motives, and abortive impulses to action! The most striking illustration of these difficulties may be found perhaps in the powerful temptation which is commonly felt in such a self-contemplation to confound the actual with the ideal. We are so accustomed to think of ourselves, as we should like to be, or as we feel we ought to be, that any attempt to face ourselves in our naked reality is beset with obstacles. That is to say, our tentative observation is weighted with the difficulty of marking off distinctly the real object which is to be examined.

Another difficulty suggests itself in close connection with this line of remark. To form a just moral estimate of ourselves we must have a full and comprehensive idea of all that part of our personality which has a moral character. We must collect in one single idea all those open practices, together with habits of thought and feeling, which go to compose our moral individuality. Now, however conscientious we may be in making the attempt, however desirous to treat all features impartially, and to leave no important element omitted, the mere intellectual work of constructing an adequate idea of our moral personality may, without exaggeration, be named prodigious. At first sight one would say there is far less risk of error in estimating one's own character than in appreciating that of another, since the sources of knowledge are so much fuller in the former case than in the latter. But though it is undoubtedly true that we can estimate a single action of our own much more easily than one of another person, just because we can directly see the inner motives of the one and not of the other, it may be doubted whether in our aggregate judgments our opinions of our own character are as free from gross error as those of other people's moral qualities; and the simple reason of this is, that in appreciating ourselves, the region to be examined is so large that it is immensely difficult to arrive at even an approximately adequate conception of its dominant features. In attempting to judge another's character our task is immensely simplified, since we must confine ourselves to external conduct, and to such internal elements as are clearly indicated by these. Yet even in these cases it is admitted that the work of observing, remembering, and classifying all the essential facts is rarely

performed with completeness. How much less frequently must we expect to find persons who are able to reflect on the whole region of their external and internal life, noting and recording without material error everything that has a bearing on the question of their moral value.

To give a single illustration of the huge obstacles to be encountered here, we may point to the liability, even with the most scrupulously conscientious intentions, of singling out as representative facts of our moral nature only those elements of conduct which attracted notice at the time of their appearance, and which therefore remain most vivid in our memory. Thus, for example, we are all apt to lay stress on the *effort* involved in moral action, and so to over-estimate the ethical value of any particular habit of conduct. In this way a person will be in danger of giving too prominent a place in his conception of his moral personality to any element of conduct; for example, the practice of religious charity, which costs him much effort, and so impresses his memory in a disproportionate degree.

It will be apparent to the thoughtful reader that these circumstances, which render so difficult an exact and trustworthy appreciation of our moral selves, considered apart, must also interfere with a correct *relative* appreciation of our virtues; that is to say, with a just determination of the degree of our moral worth as measured by a comparison with that of others. In order to compare two objects, we need to see them under like conditions, and from similar points of view. But in comparing himself with another a person is placed at a great disadvantage, inasmuch as the amounts of knowledge attainable in the two cases are incommensurable quantities, and the methods of observation employed in the two instances are greatly dissimilar. We may trace the influence of these circumstances on the relative judgments which eminent men have passed on their own abilities. For example, when J. S. Mill affirms that his natural intellectual abilities were not extraordinary, it is probable that his mind was influenced by the recollection of the numerous difficulties which he had to encounter in his studies, the obstacles corresponding to which in the path of other eminent thinkers were unknown to him. Similarly it is probable that highly conscientious men are apt to think too humbly of their moral worth in relation to that of others, through a knowledge and vivid recollection of their own

internal defects, and a total ignorance of those of their fellow-creatures.

It is hardly necessary to add that these drawbacks in the way of accurate self-appreciation are not compensated for by any facilities of indirect self-estimation, by means of the best judgments of others respecting ourselves. For, in the first place, these judgments must, of necessity, be incomplete, having only external facts on which they can base themselves; and, in the second place, such careful judgments are rarely communicated to the person whom they concern. It is only our most intimate friends who ever tell us their real opinion of our characters; that is to say, only those who, though possessing intimate knowledge of us, have the greatest difficulty in framing a perfectly calm and impartial estimate of our qualities.

Such being the difficulties in the way of accurate self-knowledge and just self-appreciation, it is clear that only the highest possible care and perseverance will enable a man to arrive at an approximately correct estimate of his own objective value, whether ethical or other. Yet with such diligence and patience it seems probable that the difficulties may be indefinitely reduced, so that the conclusion arrived at may be looked on as fairly correct. One of the most essential conditions of such an approximately just estimation is the practice of reflecting on one's feelings and actions in detail, at the moment of their occurrence. A habit of patiently looking into the whole constitution of one individual sentiment or of a single course of conduct, so as to be aware of its precise nature and of its complex sources, will tend very greatly to diminish many of those risks of self-appreciation of which we have spoken.

One practical question naturally suggests itself at the close of this study. What, it may be asked, is the good of attempting to arrive at this exact measure of our own value? And is the object to be obtained of sufficient importance to make it worth while to commence the attempt in the face of all the difficulties which have been pointed out? A very brief survey of the advantages of this habit may serve to show the inquirer that the end to be gained will reward him for the effort that has to be made in the pursuit.

Let it be remembered, then, that this accurate kind of self-estimation is to be sought as a substitute for the one-sided judgment which, as we have seen, natural disposition almost invariably prompts us

to form. It is not a choice between having no opinion and having a correct one; it is an alternative between an unexamined and prejudiced opinion and a carefully-formed one. Now, no thoughtful person can hesitate in admitting that this exchange is vastly to the benefit of the person who makes it. Many indolent natures might no doubt prefer the sweets of an illusory good opinion of their own character, and think it cruel in anybody to attempt to disturb their infatuation by enforcing any such course of self-examination. But reasonable people will at once recognize that such a deliverance from self-deception is an immense boon. For, in the first place, all error is weakness, and an erroneous opinion respecting our own merits or powers renders us liable to innumerable evils and disappointments. Even the ridicule which is certain to be directed to a man's overweening estimate of himself is something worth escaping, and this is the smallest evil which results from the illusion. A person who thinks very much more highly of his intellectual powers or his social importance than his neighbours and friends, will of course fall into all kinds of miscalculation respecting his future. A just estimate of ourselves puts us on a level, so to speak, with others, and prevents us from duping ourselves by supposing that they will make more of us than they really intend to make. A calm and just opinion of one's own capabilities and attractions is indeed one of the most important conditions of intimate and beneficial social union.

Other advantages, of no less important if of less tangible a kind, to be derived from this practice may be found in the large increase of moral power which it brings to the adopter of it. For it seems clear that a person who has sought to train himself in accurate judgment in relation to an object which presents the greatest temptations to superficial and one-sided appreciation, will be vastly stronger when called on to pass judgment on less perplexing objects. The habit of judging one's self impartially is plainly the best guarantee for the careful and conscientious estimation of others. By a patient cultivation of this art of self-appreciation there will be developed a power of self-restraint and a degree of sobriety and conscientious fidelity in forming judgment which cannot fail to display themselves in all the utterances of daily life.

And this increased conscientiousness in judging is not the only moral gain which this habit will bring to its cultivator. A

faithful consideration of our own moral claims in the light of our inner life is not only likely to make us careful when called on to judge others, but will also supply us with material for framing the judgment. For other men's conduct has, after all, to be interpreted by our own feelings and experience, and unless we have accustomed ourselves to reflect very carefully on the springs of our own conduct, we shall often miss the real clue to the actions of others. The more we have tried to detect and weigh in the moral balance the ingredients of our own character, the better fitted we shall be to understand and do justice to the complexity of a human action when it happens to be another's.

Finally it may be remarked, that the practice of estimating one's self carefully and accurately will serve to render one much more tolerant in judging of others. There is a natural bias to condemn others just as there is a natural bias to approve ourselves, and the cultivation of severe self-restraint in estimating ourselves will tend to counteract the first bias no less than the second. For to have gained a just and adequate insight into our own characters, with their defects as well as their merits, is to have placed ourselves on a lower pedestal in relation to others, and so to have raised others proportionately. Not only so, but the clear recognition of personal incompleteness which a rigid self-valuation necessitates, will temper one's feeling towards another's fault, by suggesting the possibility of our own lapse into it. In this way the most conscientious judge of his own character will become the most ready recognizer of the naturalness of moral error. Another's demerit will appear understandable, human, and so less shocking, to such a one, because it can be brought into a conceivable relation to his own motives and impulses.

There is, however, one characteristic danger in this habit of judicial self-scrutiny which needs to be pointed out. We refer to the possibility of a conscientious performance of the task developing a certain unhealthy degree of anxiety with respect to one's self. All reflection on self, if carried very far, is apt to pass into morbid self-consciousness, and the moral investigation of one's own conduct and character has often led, as the history of religious asceticism abundantly shows, to the most miserable form of this self-consciousness. Wise concern passes into morbid anxiety, and then the person is afflicted with constant fears respecting his real desert.

When this state of mind is fully developed, the wretched subject of it is unable to see any good in himself, and discerns demerit where others perhaps find the highest worth. Many of us probably have in the course of our observations met with some sad illustration of this morbid form of conscientiousness in reference to individual character. Yet happily we may look on such a gloomy condition of spirit as exceptional, and due to certain latent tendencies of individual temperament. In the vast majority of cases the habit of searching self-scrutiny is attended with little if any risk of nourishing this unhealthy anxiety, and its effect can safely be regarded as exclusively beneficial.

From The Lancet.

PROFESSOR TYNDALL ON THE AIR AND ORGANIC LIFE.

It was asserted long ago by Pasteur, and has since been asserted and denied alternately by different experimenters, that in putrescible solutions, such as infusion of turnips, no organic life is developed, and no putrefaction takes place as long as the solution, after boiling, is exposed only to an atmosphere free from organic germs; in short, that life is never, in our experience, developed from lifeless matter. Among the opponents to this theory, the foremost has been Dr. Charlton Bastian, whose experiments convinced him that organic life is constantly developed in liquids which have been hermetically sealed in flasks while boiling. Dr. Bastian goes even further, as the following passage from one of his letters will show:—"I have heated flasks, sealed in the ordinary way, and containing the fluid above-mentioned [the turnip-cheese infusion], to a temperature of 105° C. for ten minutes in a chloride of calcium bath, and have found these fluids swarming with bacteria after six days."

Professor Tyndall's researches on this important subject, and the well-devised and well-executed experiments which he exhibited a few days ago to an audience which crowded the theatre of the Royal Institution to the roof, are a continuation of those on the floating particles of the atmosphere, which attracted so much attention some years ago. He has found that these particles can be completely removed from the air by heat, which destroys their organic matter; by filtration through cotton-wool, or, less completely, through the

lungs; or by deposition, which last process requires several days for its completion. The most delicate test of the freedom of the air from solid matter was found to be the passage through it of a beam of light. The path of the rays from an electric lantern is clearly marked in ordinary air by the illumination of the motes that float in the air; but if a flask of filtered or otherwise purified air is interposed, no such illumination takes place, and the space inside the glass vessel appears dark. For the same reason, a flask filled with clear liquid transmits the light, acting as a rough lens, while the liquid inside remains dark; but a turbid liquid reflects the light at all possible angles, and appears brilliantly luminous in consequence. The beam of light is therefore a test, not only for solids floating in the air, but also for solids floating in liquids; and as turbidity is an invariable consequence of the establishment of putrefaction or fermentation in a liquid, the use of the test is obvious.

So far the experiments, though interesting and suggestive, brought out no new truth. That floating particles existed in the air, that they were partly organic, and that they could be removed more or less completely by filtration through cotton-wool, were facts known before; and the correlation of these facts with the current theories of putrefaction, fermentation, and zymotic disease was obvious. The agency of the air in these processes was doubted by few; and the idea that the solid particles of the air were the active agents in them was entertained by many. It remained to connect by direct evidence the solid particles and the zymotic changes, and to prove that when the solid particles were excluded the zymotic changes did not occur. As far as putrefaction is concerned, this direct evidence has been supplied by the experiments we are about to describe.

An air-tight wooden box was made, of which one side was glass, while each end had a glass window through which the beam of light could pass. Through the bottom passed several test-tubes, sealed in their holes, and with their open ends upwards. In the top was an India-rubber stuffing-box, through which passed a long pipette by which liquid could be dropped into each test-tube in turn. The inside of the box was moistened with glycerine, so that all particles that settled on it might be retained. Alterations of volume were provided for by small tubes, plugged with cotton-wool at the top. So prepared, the

apparatus was allowed to remain at rest for three days, until by the passage of a beam of light through the windows the freedom of the enclosed air from dust was proved. Then organic solutions of various kinds, infusions of turnip, and of many kinds of fish, flesh, and fowls were dropped into the tubes. If our memory serves us rightly, about one hundred and thirty different infusions were used in turn. The liquids in the tubes were then boiled from below for five minutes, and the apparatus placed in a room maintained at a suitable temperature. Similar experiments were made in atmospheres purified by filtration and by calcination; but in all the results obtained were identical. Except in a few cases, where the cause of the failure was certain and obvious, no turbidity occurred, and no organic life was developed in one single sample, even after the lapse of weeks or months. Every one of the same solutions, when exposed to ordinary air, putrified rapidly.

It is difficult to see any flaw in the evidence here presented. The conditions were apparently far less stringent than in Dr. Charlton Bastian's experiments, and the aptness of the solutions for putrefaction was proved in each case. The only obstacles to the spontaneous generation of bacteria were the five minutes' boiling and the purification of the air; and yet these obstacles were in every case sufficient. It seems, however, that the advocates of heterogenesis are by no means content to accept these results as final and conclusive. The last word in regard to this matter has yet to be spoken, and we are informed that Dr. Bastian is prepared with some fresh experimental evidence which he hopes soon to bring before the Royal Society in support of the position for the truth of which he has so strenuously contended.

From The Queen.

HOSTS AND HOSTESSES.

THE only way by which people can be thoroughly known is by living with them in the same house or travelling with them in the same carriage, this last being as sharp an "Ithuriel's spear" as the domestic intimacy brought about by dwelling under the same roof. The vizard created by conventionalism and imposed by good-breeding, which can be worn with ease and effect for the few hours of an afternoon tea or an eight o'clock dinner, drops

off when it comes to a question of association for days and weeks. The smooth surface which we can maintain with so much success for a short time gets broken up then by the thousand petty details of daily life, and tempers are tried and characters revealed to an extent which years of ordinary drawing-room intercourse would not have allowed. Then the real man or woman comes out, and the human nature which has been suppressed reasserts itself, sometimes with startling sincerity, and almost always in unexpected places; for no one is exactly what his casual acquaintances and superficial friends believe him to be, and the depths reveal secrets never so much as outlined in the shallows. Grace and good breeding to equals becomes tyranny and ill manners to inferiors; the kindness which caresses other people's children is exchanged for harshness and coldness to its own; the enchanting sweetness, the delightful vivacity, which so charmed the outside world, drop into sourness and gloom so soon as there is no longer an audience before which to act; the touching affection of the married people who are too prodigal of their endearments in society is exchanged for quarrelsome contradiction and spiteful satire; and the sisters who coo like turtle-doves in the market-place, fight like sparrows behind the doors and *portières* of home. All these are the things which only close daily intercourse can find out; the several transformation scenes which render the drama of life both more intelligible and complete.

But if this is the result of domestic intimacy in the one direction, in the other is that revelation of character to be had from those who play the part of host and hostess. Of these the tale is many and the varieties infinite. There are the formal host and hostess—the people who are painfully polite, oppressively stiff, always full-rigged, never for a moment laying aside the whalebone and buckram of state and appearing in the dressing-gown and slippers of home, but forever acting as if on parade, where every one must be perfect in his drill, and standing at ease is not allowed. The house of this kind of host and hostess is a kind of minor court where you go through a prescribed ceremonial, and can never cheat yourself into the belief that you are at home. You are company, and you are not supposed to forget that fact. You know that the best china is used in your honour; that the meals are planned on a grander scale, and

served with more state and magnificence because of your presence; that the toilettes of your hostess are of greater splendour, and the whole arrangements of the house more stately than usual in their hospitable desire to show you becoming attention, and to *fête* if not to adopt you. You are unspeakably wretched in your golden chains, and you feel that you are a nuisance and a bore, put it as kindly as they will; and if, as it generally happens with this sort, your host and hostess are not too well off, you feel that you are something even worse than a nuisance and a bore, and that your presence is a tax on their resources which they cannot well afford, and ought not to incur. This kind of formality is very different from the state natural to great houses. There you are always *en grande tenue* certainly; but then this is the rule of the house, and it may extend only to the mere outside. Often in the most luxurious, the most magnificently appointed houses, and those where society is conducted on the highest scale, you have substantially the least formality. You have to submit to the rules of the house, which demand daily dinner "dress" and breeding; but within these not very formidable restrictions you are free and at home, and suffer less from stiffness than in the house of a formally-minded curate and his wife, who think it incumbent on them to act grand, and to play company all the time that you are with them.

Then there are the anxious host and hostess, the dear, kind, fussy people who do not trust to themselves, but think that you will be dull if they do not provide some kind of entertainment for every day in the week. You like them heartily, and you show that you do frankly; but, tormented by that want of self-reliance which is the misery of so many worthy souls, they cannot believe that you will be happy enough *tête-à-tête* with them, and so deluge you with a succession of uninteresting strangers for whom you have neither sympathy nor admiration, nor feel the faintest desire to know or meet again. It is a long time since you have seen your friends, and you have an interesting leeway to make up; but they check all the possibilities of mutual confidence by the introduction of their friends who are not yours, and your visit ends before you have got half your budget said. Or you are weary and tired, you poor worn-out victim of work and the

world, and all that you desire is to lie on the lawn and watch the clouds and the birds, caring for neither society nor movement, wanting only solitude and rest. But your kind good host drags you tramping over the country till you are half dead with fatigue, and your kind good hostess gives you the belles of the place, or their husbands and brothers the wits, to amuse you; and you find that country society fatigues you even more than does metropolitan, and that the rest for which you yearn is a heaven which mistaken kindness diligently denies you. In contrast to these are the people who treat you so much as one of themselves as to cause you to feel isolated and neglected. They make their own arrangements exactly as they would if they had no visitor at all, and expect you to say what you would like to do, as if you knew all their ways and the various ins and outs of life thereabouts like one of themselves. "You see we make no stranger of you," they say, smiling, when they assemble from their several points to the dinner of cold boiled mutton and suet pudding; while you have been left the whole afternoon to wander at your own sweet will, or not to wander at all if that suits you best. Perhaps you think that adoption into the family might have included something of initiation, and the guardianship, the tutorship of some of the members. You do not want to be made a fuss with, but as you do not know their habits, you do not like to be left entirely to yourself. You are afraid of doing what would be disagreeable, intrusive, inharmonious; yet it is "dree" work to pass your days utterly neglected and unaccompanied, no one asking you to join in any of the plans discussed, and you not liking to offer yourself uninvited. One by one the young men steal out to their various pastimes; one by one the girls disappear to their rooms up-stairs, whence you hear their voices in talk; the master has his various duties to attend to; the mistress has her house to look after; you are left alone, and the chances are that you see nothing of any one till luncheon, when they all slowly gather round the table, to dissolve again as before as soon as the meal is ended. You acknowledge the freedom and *sans gêne* of your host and hostess certainly, but you wince at their neglect, and the chances are that if you are a hot temper you leave in a pet, and swear that you will never pay a visit to them again.

THE secretary of the interior, in his annual report to the president of the United States, commends in high terms the work of the Geological and Geographical Survey of the Territories, and presents the following brief summary of the results for the season of 1875:—The survey under Dr. Hayden continued its labours of the two preceding years in the territory of Colorado. The field of work during the past season was the southern and western portions of said territory, and including a belt, fifteen miles in width, of the northern border of New Mexico and the eastern border of Utah. The survey was divided into seven parties, four of which were devoted to topographical and geological labours, one to primary triangulation, one to photographic work, and one to the transportation of supplies. The survey of the southern and south-western portions of Colorado has been completed, so as to make six sheets of physical atlas, designed by this department, leaving unexplored only the north-western corner thereof, which can be surveyed by a single party during the coming year. The districts explored in the past season were not so mountainous as those of the previous years, but were quite remote from settlements, and in perhaps the most inaccessible regions of this continent. The total area surveyed is about thirty thousand square miles, portions of which were very rugged. Much of this area is drained by the Colorado River, and is mainly a plateau country cut in every direction by deep gorges or canons, the sides of which show, for geological investigations, admirable sections of the strata forming the earth's crust. The topography of the district surveyed was elaborated in detail by the aid of the plane-table. The exploration of the remarkable prehistoric ruins of southern Colorado, glimpses of which were obtained the preceding season, was continued with great success. They were traced down the canons to the Colorado River in New Mexico, Utah, and Arizona, and their connection established with the cliff cities of the Moquis of the latter territory. Hundreds of cave-dwellings, of curious architecture and many miles from water, were found in the sides of the gorges, and the ruins of extensive towns discovered in the adjacent plains, indicating the former existence of a people far more numerous and advanced in the arts of civilization than their supposed descendants of the present day. Of these ruins many interesting sketches, plans, and photographs were made, and a valuable collection of flint weapons, earthenware and other specimens were gathered. The materials thus obtained will enable the survey to present an exhaustive report on this interesting subject. The photographer of the survey obtained a series of mountain views on plates twenty-four inches long by twenty wide, or larger by several inches than any landscape photographs ever before taken in this country.

CHINESE FUNERAL NOTICES. — On the death of a parent, it is customary in China, at any rate with persons above a certain rank in the social scale, to forward to all friends and acquaintances, however slight, a formal notification of the fact, written in mourning ink, and on mourning paper of portentous dimensions. On the present occasion this document (in which, be it observed, the family name of the parties, Shên, is omitted), ran as follows:—“Be it known that the unfilial Pao-chên, who, on account of his manifold and grievous crimes, was worthy of sudden death has not died, and that, instead, the calamity has fallen upon his worthy father, upon whom the reigning emperor of the Taching (lit. great, pure) dynasty has conferred the first order of rank in the civil service, and that in the imperial body-guard, and the governorship of the province of Kiangse. In the twelfth year of the reign, styled Tao-Kuang, at the competition of the literati, he gained the rank of Chii jêu (that is, M.A.). The writer's father, Tan-lin, fell sick on the ninth day of this moon, and lingered in great pain until the twelfth, when he passed away. He was born about two or three in the morning of the ninth moon, of the fifty-second year of the reign styled Chien-Lung, and was therefore somewhat over eighty-four years old. Immediately he expired the family went into mourning, and now, alas! have sorrowfully to communicate with you. We have chosen the 18th, 19th, and 20th for the return presentation of this card [that is, will then receive visits of condolence]. No funeral presents can be received. The writer and his brother are kneeling with forehead in the dust, weeping tears of blood. The sons of the writer and his brother, nine in number, are kneeling with downcast faces, weeping tears of blood. The relatives and descendants, to the number of nine, are on their knees (before the coffin), beating their heads upon the ground. [From] the residence of the writer, named the Ancient Grotto of the Fairies.” Chambers' Journal.

THE BEST USE.

OUT of the bud the bright rose bloweth,
And all the soul of her sweetness goeth
Abroad to the sun and wind and rain;
But ah! ah never, in any weather,
Can she fold up her leaves together,
And close herself in a bud again!

But if the sun and wind be sweeter,
And summer's beautiful dress completer

Because of the rose's graceful part,
Were it not wiser far and better
Than, bound and locked in her fair green
fetter,

To die with an untouched virgin heart?

Evening Post. MARY ANIGE DE VERE.